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EMPLOYMENT AND WELFARE OF JUVENILES

TO

MY FATHER AND MOTHER

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THE EMPLOYMENT AND WELFARE OF JUVENILES

A HANDBOOK FOR THOSE INTERESTED IN CHOICE OF EMPLOYMENT AND AFTER-CARE

BY

O. BOLTON KING

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PREFACE

THE probable near revival of active participation in social work, more especially as an adjunct to the educational organisation of this country, together with the added interest in those forms of social undertaking concerned with the young wage-earner which has been brought about by the recent changes in choice of employment activities, have prompted the writing of this book. On every side is heard the remark, ever increasing in insistency, that the money spent on our educational system is, to a great extent, wasted because once the child has left the elementary school it is no one's business to keep an eye on him; and, again, it is ever more frequently said that a huge waste of human material takes place because not enough effort is made to sort out workers, particularly while young, into the occupations for which they are most fitted. These trends of thought are reflecting on our social work among adolescents, and to meet the demand more and more paid and voluntary workers are being drawn into the work. The author hopes that to some small degree this book may be of assistance to such workers as these. The field to be covered is so large, and the method of dealing with it at present is so vague and ill-defined, that to give a complete account would be impossible. The present book aims only at giving the more im-

portant facts, and in showing the lines along which development may be possible.

Although many of the views expressed in this book reflect those of the Committee which I have the privilege to serve, it should be clearly understood that all expressions of opinion do not represent the policy of that Committee.

I have to thank the many public authorities, firms, and individuals who have in one way or another made the writing of this book possible. In particular, I would record my deep indebtedness to the *Educational Times* for permission to utilise portions of my articles which have been published in it, and to Mr. E. W. Hurst, Dr. Alexander, Mr. W. H. Bolam, Mr. E. H. Carter, and last, but not least, to Professor J. J. Findlay, my father, and Mr. Percival Smith, for their painstaking suggestions and criticisms.

BIRMINGHAM, 1925.

INTRODUCTION

It has been a pleasure to read the manuscript of this book while in the making, and I will endeavour to set down the impression that it leaves on my mind, as I look back on the conditions prevailing sixty years ago when our grandfathers first set out to take " care " for the children of England.

The task, as they conceived it, was to introduce the resources of the State, central government and local government both, to *supplement* the philanthropic and voluntary efforts of those whose intelligence and wealth had been evoked on behalf of school children. As soon as the enterprise took serious shape, men were met with that thorny problem of political philosophy, the claims of the State against the rights and duties not only of individuals but of corporate groups to whom the welfare of the young was of capital importance.

The institutions of religion were unhappily placed in antagonism to the officers of State on behalf of the " voluntary " principle, and they fought a losing battle: chiefly because the magnitude of the task demanded resources which could only be found by resorting to the compelling powers and the unlimited purse of the State. For a time the victory of the so-called " secular " power, the bureaucratic official organisation of education, seemed absolute.

Among many " progressive " people the conception of voluntary effort in education appeared to be a relic of a bygone age. A collectivist theory of national organisation appeared to be the only reasonable basis

for the organisation of social forces: the prestige of School Boards, L.E.A.'s Departments and Boards of Education advanced by leaps and bounds. A great public "service," embracing not only the elements of culture but the resources of medicine and hygiene, had come to the aid of millions of children, and the nation has been grateful for the intervention of the bureaucrat.

But as we now look back upon this history, we see that the very success of the system paved the way for a revision of the philosophy on which it had been based. To Mr. Bolton King, and to all enlightened administrators who are now working in the public system, "voluntary" is by no means a term of reproach; on the contrary, his exposition assumes, as a matter of course, that many types of volunteer effort are welcomed by local and central authorities as essential to the efficiency of the public system. Here and there, no doubt, there are still to be found a few members of committees, a few directors or inspectors still obsessed with a simple faith in the sufficiency of the machine, but they are losing influence year by year. For, as I have said, success has opened the way to a larger view. Not that our renewed acceptance of the voluntary principle is in any sense a reversion to pre-School Board times; Church and State have, on the whole, found a path of compromise which enables religious freedom to be reconciled with State authority over children. We are by no means reactionary, but we have discovered that education means far more to us, lays far greater obligations upon the body politic than were accepted, or could be accepted, by those who laid the foundations of this great edifice. In three directions at least one can observe profound changes, and all three are displayed in the pages of this book.

Firstly, in the basic idea of what schooling can achieve. The organisers of the last century fixed their attention on curricula, on scholastic attainments, on "results." To-day we by no means despise these factors in the process, but we are now far more conscious than they were of what we call the social, environmental elements in the making of a character. The children, especially in our congested areas, need something that we call "care," not only care of body, but kindly interest in matters of the individual life, in what we vaguely call "welfare"; the playground with its out-of-school interests, the child's home-life, loom large.

Secondly, the obligation to educate has extended beyond the "elementary" age. No longer do we distress ourselves with "Cockerton judgments" (how absolutely these brave conflicts of the 90's are passed out of mind!). Our latest legislation stretches its control, or hopes some day to extend, over "the young person" until he can stand on his own feet, not at thirteen or fourteen, but at eighteen years of age. How little did the founders of our system, the Kay-Shuttleworths and Forsters, realise the strength of the new social forces that are now operating in the public mind! They saw to it that the little children gained the elements of knowledge; and for them and for their day that was enough. Now we are called upon to think of after-care, of employment, of the whole life and experience of our boys and girls when they emerge from the classroom to face the shop and the factory.

For, finally, these expansions are real problems; they are actually pressing upon officers of State because the seed has ripened into harvest. The themes that Mr. Bolton King handles come out of the nation's needs—the needs of a nation bred up in the people's

schools, and now *ready for more.* Education grows by what it feeds on, and its demands are insatiable! Of course, there are doubters and protestants: a Geddes axe is flourished, and for a time timidity prevails; but few will now question that the mind of the English people is set seriously upon the progress of education—to an extent that is new in the experience of our race.

It is on these grounds that the State—*i.e.*, the community as organised in its public machinery—finds itself compelled to seek alliance with the voluntary worker: compelled to think out a new philosophy of relations between the volunteer and official. The official himself is of one mind with the volunteers: they are, each and all, " social workers "—paid, unpaid, or partly paid—members of committee, teachers, helpers, clergy, all alike are servants of the State, working in an organisation which may be complex, but which, when understood, gives every worker his opportunity to add his contribution to the grand achievement.

It is the purpose of this book to show how these varied operations are being conducted in one portion of the field of education. Mr. Bolton King does not attempt to cover the whole area of educational administration; for that purpose several volumes would be needed. But he has fastened upon one of the two fields which, at this epoch, have caught the popular imagination—the needs of the young wage-earner. The other field is concerned with the little bairns before they enter the primary school, and one hopes that he will see his way before long to set forth, both for the public who provide the volunteers and for the teachers and organisers of nursery schools, the provisions made for those of tender years.

J. J. FINDLAY

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THE EMPLOYMENT AND WELFARE OF JUVENILES

CHAPTER I

THE DEVELOPMENT AND ORGANISATION OF "AFTER-CARE" AND "CHOICE OF EMPLOYMENT"

§ 1. Development in the United Kingdom.

Care for the child who has left school, until he is able, or is supposed to be able, to guard his own interests—roughly from fourteen to eighteen—has been one of the most marked departments of social work in quite recent times. It is the natural sequel of national education. We have come to understand that our great effort to train the boy's or girl's mind and character is largely wasted if we turn them adrift at fourteen, immature, half-taught, too weak in mind and undeveloped in body to battle for themselves or find for themselves their proper places in the national system, too crude and thoughtless often to grow into good citizens.

Two parallel and interlinked movements have come to supply the need. "After-Care" takes the whole of the youth's life within its province, looks after his education, his amusements, his moral health—continues, in fact, as far as it can, his school training, and aims at making the man and the citizen.

"Choice of Employment" takes the special province

of his economic life, finds him the work for which he is best fitted, warns him off the blind alleys, fosters his industrial training, and tries to protect him from being exploited until he is able to fend for himself. The former began as a voluntary agency, but is being increasingly taken over by the State; the latter is almost entirely worked by public agencies. Both tend more and more to be forced into one organisation.

A tentative seeking after the organised welfare of the adolescent is to be found as far back as the Middle Ages, when it was common to receive free meals at school. Thus, in Edward III.'s time, thirteen poor scholars of the High School at Winchester were to be counted among the hundred poor who were daily fed at St. Cross Hospital; while the same idea is found to function later on, when, in 1608, the Court of the Merchant Taylors' Company ordered:

" There shall bee payd unto the maister of the schoole for beere, ale, and new manchet bread with a dish of sweete butter, which hee shall have ready in the morning, with two fine glasses set upon the table, and covered with two faire napkins, and two faire trenchers, with a knife laid upon each trencher, to th' end that such as please may take part to stay their stomachs untill the end of the examination."

Two hundred years later we find a free meal of one potato was given by John Pounds, the cobbler of Portsmouth, to induce children to attend his school, while in 1870 school teachers, and later other charitable people, began to provide free school meals. Organised feeding of school children first took root in London, where, in 1876, the Industrial Schools Committee held a conference on the subject. A second conference in 1889,

following upon an exhaustive enquiry into the need for free meals, resulted in the formation of the London School Dinners Association, the objects of which are indicated by its name. The work continued on a voluntary basis for some years. In 1905 the Local Government Board issued the Relief (School Children) Order, but obtained little support from Boards of Guardians or Education Authorities. However, a year later, after a report by a Select Committee of the House of Commons, the Education (Provision of Meals) Act became law. This Act provided for the feeding of school children who are " unable, by lack of food, to take full advantage of the education provided for them."

Children's Care Committees were first created in London in 1907, for schools definitely classed as " necessitous," and with the object of carrying out the provisions of the 1906 Act. After two years' experience, it was decided to extend the system in a modified form to all Elementary Schools within the area. Besides being merely feeding committees, they were to become " Care " Committees, taking an interest in the general welfare of children, and in co-operation with the parents and existing organisations assisting them in various ways.

While the School Care Committees were continuing to extend their activities, people began to realise the waste of ability and misfits that resulted from children choosing their own vocations. The first result was a clause in the Scotch Education Act of 1908, permitting school authorities to maintain, or to combine with other bodies in maintaining, " an agency for collecting and distributing information as to employments open to

children leaving school." Under this clause the Edinburgh School Board, in 1908, called a conference, at which were represented the Chamber of Commerce, various labour and employers' organisations, churches, and educational institutions. The conference decided to establish an educational information and employment bureau. This bureau was to carry out the following programme:

(1) To interview boys and girls and their parents or guardians, and to advise them with regard to further educational courses and most suitable occupations.
(2) To prepare leaflets and pamphlets or tabulated matter giving information to the scholars about continuation work.
(3) To keep in touch with the general requirements of employers, and revise from time to time the statistics of employment.
(4) To prepare and revise periodically statements on the trades and industries of the district, with rates of wages and conditions of employment.
(5) To keep records of vacancies reported by employers, and to arrange that suitable candidates should have an opportunity of applying for the vacancies.
(6) To report periodically on the work of the bureau.

The success of the Edinburgh scheme, and the growing desire for labour exchanges (due to some extent to their introduction in Germany), led Mr. Churchill, in 1909, to remark in his Dundee address on unemployment that:

" No boy or girl ought to be treated merely as cheap labour. . . . Up to eighteen years of age, every boy and girl in this country should, as in the old days of apprenticeship, be learning a trade as well as earning a living."

This ideal may be often impracticable under modern division of labour, but he conceived the labour exchange as an agency for guiding the new generation into suitable and permanent employment, and for diverting it from overstocked or declining industries.

The Labour Exchanges Act of 1909 passed into law, and, after consultation with the Board of Education, the Board of Trade, in 1910, issued special rules for the registration of juvenile applicants for employment. These rules provided:

(*a*) That special advisory committees for juvenile employment should be established by the Board of Trade, consisting of persons possessing experience and knowledge of education or other conditions affecting young persons, and also of persons representing employers and workpeople.

(*b*) That the procedure of these special advisory committees should be determined by the Board of Trade.

(*c*) That the duty of the committees should be to advise on the management of any labour exchange in the district so far as it concerned juveniles; and

(*d*) That, subject to these rules, a special advisory committee might take steps either by themselves or in co-operation with others to give information, advice, and assistance to boys and girls and their parents as to the choice of employment and kindred matters, the Board of Trade, however, undertaking no responsibility for the advice or assistance.

Under these rules Juvenile Advisory Committees were established in various towns to co-operate with the local labour exchanges in the care and direction of young persons. About a year later the Education (Choice of Employment) Act, 1910, was passed, empowering Local Education Authorities to make arrangements, subject

to the approval of the Board of Education, for assisting boys and girls under the age of seventeen (afterwards raised to eighteen) in the choice of their employment. Committees so established, like the Juvenile Advisory Committees, were composed of representatives of both the Board of Education and the Board of Trade (this section of the latter's activities has now been transferred to the Ministry of Labour), employers, employees, teachers, social workers, and the Local Education Authority. Thus two Government Departments were running rival schemes to cover the same ground, and the dual system was bound to end in failure. Friction at once resulted; so much so that in January, 1911, the two Boards issued a joint memorandum:

"With regard to the co-operation between labour exchanges and Local Education Authorities exercising their powers under the Act . . ."

The position after the issue of this memorandum was that the vocational, and partly the social and educational, care of adolescents might be organised either by a Local Education Authority, or by the Board of Trade, or jointly by both, and till recently all three types of scheme were to be found working.

The essential difference between the Juvenile Advisory Committee and the Choice of Employment Committee, as those established under the 1910 Act have been usually termed, lies not in any variance in their aims—for both supervise the choice of a career and the finding of a place of employment, as well as care for educational and social welfare through their various sub-committees—but in their place in the administrative machine. The former is directly controlled by a

Government Department, and its cost is borne by the State, while the latter is a local government committee, a sub-committee of the Education Committee, which in turn is responsible to the City, County, or Borough Council. In this case the cost, except that of Unemployment Insurance, is divided almost equally by the Government and Local Authority.

Where both departments were concerned with a scheme, the most usual division of responsibility was that the Board of Trade, through its labour exchanges, undertook the vocational side of the work, and the Local Education Authority, by means of sub-committees, managed the social and educational counterpart. In such cases the two authorities, in theory at any rate, co-operated in all matters of general policy and the part of administration which was common to both. "Co-operating officers" formed the link between the two bodies.

Normal development was checked by the war; such progress as took place was concerned with special war-time problems, while after the Armistice both Care Committees and Employment Exchanges, as they were now termed, were absorbed in repairing their previous organisation. By 1922, however, there had been time to look round and plan in advance. Lord Chelmsford was requested by the Government to enquire into the administration of Choice of Employment, and in due course his report was adopted by them.

Its conclusions were that joint control by the Ministry of Labour and the Board of Education had in many cases proved a failure, and that it would be better to introduce "single" schemes for which only one authority should be responsible. To do this, each

Local Education Authority, whether it had a scheme already at work or not, was asked to take sole control; and failing its consent, the Ministry of Labour was to organise the work itself. Thus, all pre-existing dual schemes would be abolished, and in areas where there had hitherto been no scheme at all one would be established by one of the two authorities. In addition, wherever an Education Authority undertook to run a scheme, it was also to assume responsibility for the administration of unemployment insurance. The cost of the scheme would be shared between the State and the Local Authority; but the former would repay all monies paid out as unemployment benefit, to which would be added a *per capita* grant to cover insurance administrative charges. After considerably prolonged negotiations as to the amount of this grant, the provisions of the report were embodied in the Unemployment Insurance Act of 1923. Many Local Authorities accepted the offer so made, and their new schemes have now (Feb., 1925) come, or will shortly come, into operation.

§ 2. In Other Countries.

Meanwhile, in the United States the growing conception of society's duties toward the young wage-earner was producing a somewhat similar machinery, which, however, has developed further and faster than in England. In the early years of this century the American people began to realise acutely that they had felt too secure in their prosperity, and that some conservation of natural possessions and human material was needed. The feeling grew that nothing was more wasteful than the old system of allowing anyone to

do any job. Their attempts to find a remedy ran on two independent lines. They began to assist the school leaver to select a vocation, and they introduced "scientific management" to lessen the waste of human material inside the factory. In Boston an investigation made by Professor Parsons showed conclusively that boys about to leave school knew little of the peculiar features of the occupation which they intended to enter, and took little thought whether they were fitted for it. Out of this there grew, in 1908, an office, with Professor Parsons at its head, for advising boys and girls in all matters relating to the choice of a vocation. So successful was this pioneer effort, that similar bureaux were instituted in a number of American cities. It was, however, clearly recognised from the first that impressionist methods could not achieve the desired end, and that three well-defined lines of advance were necessary:

(1) A thorough analysis must be made of the special economic, technical, hygienic, and social features of each occupation, so that intending recruits could ascertain whether they were likely to succeed in any particular line of work.

(2) The schools must be interested in order that teachers might, by their knowledge of their pupils' individual characteristics and abilities, give preliminary data for the vocational experts to work upon.

(3) Personal traits and dispositions must be ascertained much more exactly than is possible by rough-and-ready general observation.

It is here that our English methods differ from the American. So far, we have gone little further than the second, and to some extent the first of these aims. We have allowed our bureaux to remain in most cases mere

employment agencies, with little thought to the development of scientific method.

While vocational bureaux have sprung up rapidly both in America and in most Continental countries, as well as in Japan, with the general object of fitting the square peg into the square hole, and are trying to do so with scientific conciseness, other specialised agencies have also come into life. Chief among these are institutions for research into the psychology of vocations, and in some twenty American Universities, not to speak of independent organisations, regular psychological research is undertaken. The object of this work, as will be shown at greater length in a later chapter, is to discover the needs of various occupations and the means by which would-be workers may be tested for their fitness for any particular vocation. Both in England and America there has long been a clear need for some central body to co-ordinate such investigation, and to carry out the more advanced work. In America it has been met by the organisation of the Personnel Research Federation, which aims at both these objects, and in England by the National Institute of Industrial Psychology, which undertakes research, but not co-ordination. There is at present a very real need here for some organisation which will collect and distribute to local vocational agencies detailed information about recent advances and improved method. At the moment it may be well said that the vocational expert's right hand knows not what his left hand does.

In most countries, and, since the inception of the National Institute of Industrial Psychology, to some extent in England, a tendency has shown itself to separate actual placing in employment from the giving

of advice. Nearly all the American agencies have made this distinction, and they have also separated the collection of statistics and the broadcasting of trade information. A typical European example is the Institut d'Orientacio Professional of Barcelona, which does no direct placing, and confines its attention to research and the giving of advice. Among the older European institutions is the Office intercommunal pour l'orientation professionelle et la placement des jeunes gens et des jeunes filles dans l'Agglomeration Breuxelloise, which was opened in July, 1914, and continued throughout the war. Its method is to utilise a full medical and educational report, together with the results of tests for intelligence and vocational fitness. It is interesting to note that centralisation was found to work badly, and that since the war each commune has opened its own local office under the direction, but not the control, of the central office.

Choice of Employment is also carried on in Berlin and other German towns, in certain towns in France, Holland, and Scandinavia, Japan, and Czechoslovakia. Owing to the fact that most of these schemes are of a highly technical nature, no general description will be given here, but points of interest will be mentioned in later chapters.

§ 3. Division of an Area—District Committees.

In towns of any size it is usual to divide the area into smaller sections, and to create in each section a Care Committee responsible to the central committee. These local committees are, as a rule, quite distinct from the central body. Whereas the main committee

is responsible for matters of policy and administration, the local committees consist of teachers and other executive social workers, and are entrusted with the actual work among the children. They are the cutting edge of the organisation. Sometimes the school is taken as the unit—sometimes a group of schools. In the former case a separate committee is attached to each school; in the latter, several schools combine to man one committee. It is a matter of considerable doubt which type of subdivision is preferable. Briefly, the argument in favour of a committee for each school is that it is then possible to have small manageable committees, which, while being small enough to avoid the necessity of formality and cumbersome routine, are, at the same time, able to work with a limited set of teachers and children, and to become a part of a closely knit social grouping. Larger committees, on the other hand, are apt to become unwieldy, and, because they serve several schools, loose in the unity of their grouping. They possess, however, the great advantage that only one representative of any organisation is needed to serve on them, while if a number of committees exist in the area—*e.g.*, of a certain Sunday school—that Sunday school needs to be represented on each committee. Probably no general ruling is possible; local conditions should decide.

Successful work depends a good deal on a right demarcation of committee areas in large towns. In such it is better not only to form local committees, but to arrange these committees into groups for administrative purposes. Three alternatives present themselves. First, to take areas of suitable size, but irrespective of any symmetrical arrangement. This is

best suited to towns of a straggling shape which lend themselves to clean-cut subdivisions. Second, to divide the town by radial lines into sectors, each sector having at its apex a section of the business centre of the town, then, taking a part of the usual inner slum ring, ex-

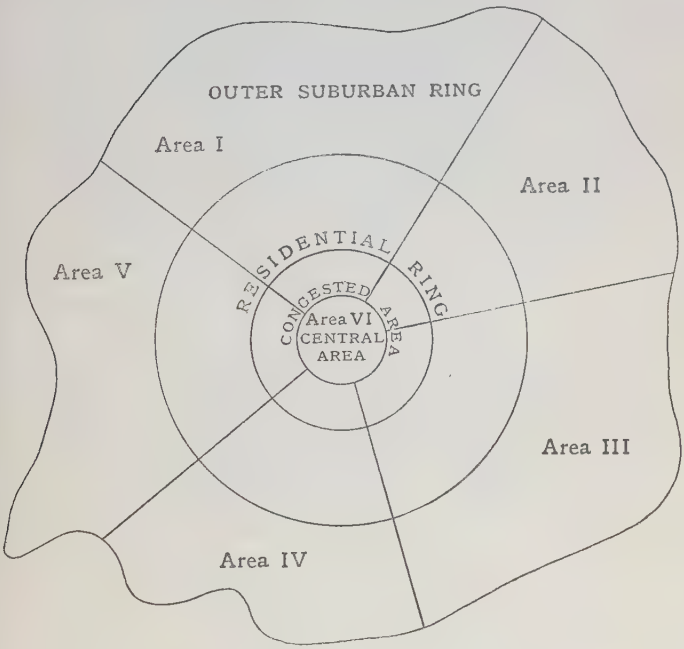

DIAGRAM I.

tending outwards to the contiguous artisan residential area, and finally reaching the outer suburban ring. Third, to divide the area with concentric rings, thus bringing all the area of one type within one administrative district; a central business area, a congested area ring, an artisan and clerical ring, and so on. Where

a town is of a symmetrical shape the advantage clearly lies with one of the two latter alternatives, and of these

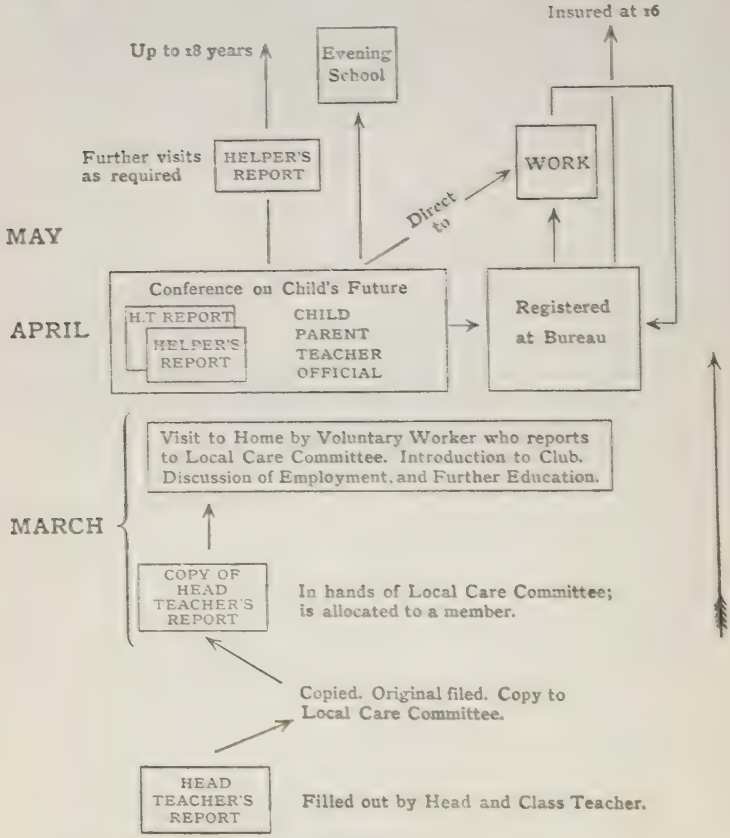

DIAGRAM 2.

preferably with the radial system, for then it is possible to draw better-class workers along the tram routes to the poorer areas in the same sector. Also, community interest rarely crosses the centre of a city. The north is

concerned with the north, the west with the west; and, by taking advantage of this, a closer social organisation is obtained, and there is a greater incentive for workers to come forward. The drawback, however, is that towards the central apex each sector becomes so narrow that local organisations spread into more than one Care Committee's area, and difficulties follow. Probably the ideal division of a large town is as shown in diagram 1 on p. 13, where this difficulty is obviated.

Organisation of Routine Work.—Space does not allow a detached description of the many systems adopted by local authorities to regularise the routine work of After-Care and Choice of Employment. Perhaps the clearest way of giving an all-round description is by means of a diagrammatic picture of a young person's contact with the scheme. Diagram 2 given on p. 14 is only correct in a general way, and should be varied to suit different areas. It refers to a child who leaves an elementary school at the end of April.

§ 4. Subsidiary Functions of the Care Committee.

Many education authorities have a department specially devoted to social work, and this has led to Care Committees being entrusted with other than their primary duties. Mention has already been made how the Care Committee began as an organisation for feeding children, and in its later development it has gathered to itself activities which, in a sense, are parallel to its original work. Chief among these are play centres, organised games, summer camps, and clubs.

Play Centres.—During the last decade there has been a considerable movement, both in England and

America, to provide facilities for play among children. Modern industrial conditions have more and more robbed the mother of her prerogative of initiating children into the joys of make-believe, and have left the father little opportunity to teach competitive games. Play not only provides training for the serious work of life, but, because it reproduces in the young individual the corresponding period of the race's infancy, is perhaps essential for proper development to maturity. The need for play, and decreasing chances of indulging in it, as well as the moral and physical dangers of uncontrolled evenings on the public streets, has led to the establishment of large numbers of play centres in overcrowded areas. It was soon found that the provision of ground and appliances was not enough, and that play leaders must be supplied. In America the Playground and Recreation Association has done good work, and in this country play centres have been established under the Education Acts. Play centres usually cater for children of elementary school age, and in most cases are staffed with paid workers who have been trained in the theory and practice of play. Organised by the local education authority, such centres are intended for those children who, in their head teacher's opinion, are most in need of organised activities. It is customary to make the curriculum as varied as possible, and to allow the maximum of freedom which is consistent with the maintenance of order and the introduction of a team spirit. In addition to general activities, such as choral singing in which all can join, sections are formed under individual members of the staff to indulge in various activities, such as toy-making, sewing, painting, basket-making—to mention only a few.

Since the play is conducted indoors, centres are open only in the winter months, while their summer counterpart, *organised games* in the parks, often fills up the remainder of the year. In many towns parts of the parks are reserved, at stated times, for the purpose, and game leaders are appointed who are expected to organise the games of such children as are on the spot. It is found that, besides providing proper games for a limited number of children, the whole moral, mental, and physical level of play in the district is improved.

Summer Camps are the logical outcome of organised play. However much attention is given to the latter, it is not enough in the crowded, vitiated atmosphere of large towns, and there are only too many children whose health makes a change of environment imperative if they are to have a chance in life, and if their education is not to be spoilt by feeble vitality. For many years the Country Holiday Fund and other organisations, as well as individual schools, made it possible for many children to have summer holidays in the country or at the seaside, but it is only recently that any "official" ventures have been made in this direction.

Clubs.—See p. 24, *et seq.*

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CHAPTER II

AFTER-CARE

*§ 1. The Scope of After-Care.

We have briefly reviewed the growth of "Choice of Employment" schemes. As they developed, two main branches have become segregated from each other, the one dealing with the choice of a vocation and the finding of a situation, the other with the general welfare of the young wage-earner—*i.e.*, "After-Care." In reality they are two closely interwoven threads of the same fabric, related in their aims and inseparable in practice. The one is the necessary counterpart of the other, and in England our chief claim to distinction in the care of the adolescent lies in our realisation of how intimately the two activities are related. Though we are far behind some Continental countries (notably Germany and Belgium) and the United States in methods of scientific vocational guidance, we may perhaps claim to lead the way in co-ordinating the various parts of the industrial and social care of the young worker.

Looking at the work undertaken by typical local authorities, we find that, broadly speaking, it can be divided into the following groups:

* After-Care activities should be clearly distinguished from "School Care activities," which concern only the child who is still in attendance at an elementary school.

A. (1) Social After-Care.—General advice to parent and child, and help in social problems. Introduction to clubs and other organisations.

(2) Medical After-Care.—Following up treatment begun or recommended at a school clinic. Introduction to agencies for giving treatment. Advice on the medical effects of occupations. Co-operation with various health authorities.

(3) Educational After-Care.—Advertising further education and securing attendance at evening schools. Advice on vocational training.

(4) Vocational Guidance.—Advising on, and helping in, entry into industry and commerce. Collection and distribution of information about trades. Improving conditions of work and methods of selection of work and workers by competent investigators.

(5) Social Organisations.—The opening, maintenance, and encouragement of clubs, play-centres, etc., and such institutions as unemployment schools.

(6) Unemployment Insurance.—See p. 168.

Out of the above spring certain special activities common to all groups. Chief among these are:

B. (1) Special Cases.—Cases requiring special treatment under one or more of the above headings.

(2) Statistical Work.—The collection and arranging of data relating to the work, and statistical returns for the use of Government Departments.

(3) Research.—Partly based on the last, and aiming at the discovery of the social and economic laws in operation, and the invention of better methods of treatment. The collection and publication of conditions and prospects in various trades.

There are, roughly, three different degrees of supervision required, dependent on the kind of child and the character of the home:

(A) For children in good homes, where the parents are responsible people, and who are in a position to do all that is necessary for them.

(B) For children in good homes, but where certain help or advice appears to be required.

(C) For children who suffer from some disability, either in themselves or in their homes.

With children in the first group, all that is necessary is to provide the employment bureaux with such information about the child as may be necessary if he has to be placed in work. This information need not be obtained from a home visit, but may be supplied by a responsible teacher or club manager.

To visit many better-class artisan homes, especially if the visitor is not particularly experienced, is only to court resentment. Further, it should be remembered that many parents of education and holding good positions now send their children to elementary schools, and are as well able to look after their child as is the After-Care visitor. In many such cases, where useful advice might be given, the resentment at an outsider's interference would outweigh it.

While Vocational Guidance is clearly best carried out in special offices, and to a great extent by paid experts, After-Care is essentially a decentralised and voluntary effort. The After-Care worker is a volunteer, and his field of action is the home, the school, and the club. It is he who, in performing his duties, incidentally prepares the way for the technical expert, the doctor, the evening school teacher, and, to use an American term, the "Vocational Counsellor." The latter's duties correspond with, but adopt a more scientific method than, the technical as apart from the

administrative duties of the English Employment Bureau official. His function is to help as far as he is able, and to pass on to his technical colleague the cases which he cannot deal with himself.*

§ 2. Providing the Helper with Particulars of his Charges.

The helper starts out with, at any rate, the name and address of each child allotted to his or her care. Often he is given a complete school-leaving card, with detailed information on the child's school record. It is a most doubtful point whether it is best to supply this full report, or simply name and address. On the one side, it is argued that the fullest information on character and attainments is needed by the worker in order that he may, so to speak, be prepared for the best—or worst—and have some foundation on which to base his advice. On the other hand, such information is, perhaps, unnecessary; there is the danger that confidential information may fall into careless or indiscreet hands. The matter is one upon which it is difficult to be dogmatic, for, while full information is, no doubt, very valuable to a helper, fear of its miscarriage often prevents head teachers from speaking frankly in their reports. Yet, to suppress the facts is to ask the worker to walk in uncharted places. Possibly the solution lies in the use of two reports, one a full one, the other condensed.

Whatever information may be passed on to the visitor, the School Leaving Form is of great importance as a guide to officers of the Care Committee, and those

* The terms "helper," "worker," "visitor," are used more or less indiscriminately. All these mean the same, and signify a member of a "Care Committee."

responsible for placing the child in industry. For this reason, too great attention cannot be given to the filling-in of the form. This filling-in is a matter for both head teacher and class teachers, including those who have been responsible for the child's sports and manual instruction or domestic science, respectively, for boys and girls. It is important that the information given should not only be accurate, but should give a clear and comprehensive summary of the child's character, ability, and desires. Apart from the fear of reports going astray, too many teachers are afraid of putting anything in writing which is not particularly laudatory. This is false kindness, for besides making the reports unreliable, it often causes the child to obtain a situation which he cannot subsequently "hold down," with the result that sooner or later he is dismissed, and, therefore, discouraged.

Particulars of the total home income (important in matters relating to further education and initial wages) should never be elicited by direct questioning. Where such information cannot be obtained from existing records, it should be gleaned in some unobtrusive manner—for instance, by means of a personal call to invite the parents to the "school conference," or meeting for consultative purposes, of parents, teachers, children and helpers, prior to a child leaving school.

§ 3. Obtaining Contact with the Child.

The helper's first task is to effect contact with the children who will shortly be leaving school, and thus come under his care. In most cases this is done by means of a visit to the home; but occasionally, for

special reasons, he gets into touch through a club or society. A good and favourite plan is for the head teacher to invite helpers to meet the children at school and have a preliminary talk with them there. This not only makes the helper acquainted with the child, but it serves as a useful introduction to the home. To enter the house as a friend of one of the children is a very different thing from coming as a stranger. This, by the way, solves the problem of the school leaving form, for it is then possible for full confidential data to be given on the form for the use of officials only, while the teacher, by word of mouth, gives the helper such minor information as may be desirable.

§ 4. Home Visiting.

Home visiting is apt to be looked upon as one of the most ordinary and humdrum phases of social work. In actual fact, home visiting is one of the most difficult. Not only is great tact required, but there is a special skill in obtaining information without prying, and in advising without patronising. The visitor must collect all the data required by the organisation under which he works; he must leave behind him sound advice, with a chance of its being followed; and, above all, he must know that when he next calls it will be as a welcomed friend. Much of the ill fame which some social workers have among some working people is due to lack of respect for the rules of the game.

It is impossible to describe the technique of visiting; each worker must, to a great extent, discover it for himself, although there are certain rules which may be laid down. A well-known cleric and able social worker,

addressing a number of new workers, spoke, as nearly as memory serves, in these words:

"First of all remember to be polite, courteous, and kind. Do not think that you are always right, while your host is wrong. Try to see his point of view; there may be much in it. And try to put your proposals to him from his point of view, not from yours, for his outlook on life is not the same as yours. Do not ask direct questions about financial or social conditions, for the poor are proud. If you are content with leading the conversation into the right channels, you will be given all the information you require. Be quite frank about your errand, otherwise you will be confused with the local detective; and do not flinch at facts not discussed in your drawing-room couched in language not usual in your home, for convention is a relative thing. Never let your eyes wander about, or you will be detected in noticing an empty cupboard or unwashed crockery, and then pride will step in between you. And, of even greater importance, never make notes. Walk round into the next street and make your notes there. Remember these few don'ts, and, provided that you are a gentleman and have ordinary common sense, you will either make a good visitor or discover that your call for social work lies in another direction. If you visit, remember that your responsibility does not alone concern 'After-Care,' but has a considerable effect on the regard in which one class holds another."

§ 5. Introduction to Clubs and Other Organisations.

The first duty of the visitor is to ascertain, if he does not already know it, whether the child is attached to some social organisation, and, if not, to put him in touch with one. Even where some organisation enters into the child's life at the moment (prior to leaving

school), there is a strong presumption that he may cease to be an active member during the next few months. More children lose touch with clubs and leagues during the transition period from school to work than at any other age, and many children who have so far made the school a centre of social activity will not, without prompting, replace it by an old scholars' club or any other organisation. The visitor, therefore, must do this prompting at the outset. The associations of school life stop for 90 per cent. of our children at the age of fourteen, just at a time when their social instincts are most needing expression. The inevitable result is that unless a good connection is formed, a bad one will create itself in one of the innumerable manifestations of a boy's gregarious instinct. Where an old scholars' club exists in connection with the school, it is better for the visitor to add his persuasion to that of the teachers, and try to make the child a member. Clubs are frequently run by Care Committees, and these, together with old scholars' clubs, afford many facilities for a special oversight not always possible where outside organisations are concerned. The special value of the old scholars' club is that it carries on the associations formed at school, and does not need the formation of a new web of associations.

The local Care Committee often provides its members with details of all clubs within its area, so that each child, where possible, may be introduced to the club best suited to its peculiar needs. The placing of *any* child in *any* club is as bad as placing any child in any job. Both lead to misfits, friction, and eventual failure. A case in point is that of a girl who was a thorn in the side of her club leader; she hated the discipline,

and was bored by the club pursuits; she was eventually suspended. She was then introduced to a club where discipline was free, and within a month was practically organising it. Other cases might be quoted of girls who were lost or uncontrollable in such a club as the latter, but who became happy and useful under a more rigid system.

The following list gives the kinds of clubs usually available:

Independent Clubs.—This heading comprises a number of clubs of different kinds; being independent, and not associated with any widespread organisation, such as a church, it is clearly of advantage to them to be linked up with the local Care Committee. At the same time this attachment has its difficulties, for it is clubs of this type which draw the "lone hands" among social workers—men and women who not unfrequently dislike connections of a quasi-State or municipal character. But for many reasons a child is best when "after-cared" by an adult connected with the same organisation as himself. Hence almost all Care Committees try to have representatives from all organisations in their area, both from independent clubs and from the other types.

Old Scholars' Clubs.—There has recently been a considerable increase of schools which have some form of association for ex-scholars. As a rule, such clubs are managed by the school staff, and membership is confined to children from the school in question. But only from 20 to 30 per cent. of school-leavers become permanent members of their own association, and hence the need that social workers should urge children to

join. It is often, however, unwise to press too strongly for membership of the old scholars' club, for reluctance to do so frequently denotes lack of harmony between scholar and school, and there should be no forced union. It is always better, in such cases, to link up the child with some organisation that is unconnected with the school.

Much valuable work may be done by Care Committees, working as a part of the educational machinery, to foster the opening of these clubs. They and their officials are in a natural position to press teachers to start such clubs, and to offer inducements, such as free rooms, lighting, heating, and the like.

After-Care Clubs.—These are often opened and maintained by members of a Care Committee as an integral part of the Committee's work.

University Settlements.—A part of the work of all settlements is to run clubs. Wherever a settlement exists, it tends to become the centre toward which all local social work gravitates. A settlement is usually well supplied with experienced social workers, who enable it to deal with a great variety of cases, and to bring skilled and specialised help to bear on each of its charges.

Juvenile Organisations' Committees.—Recently the Home Office set up machinery, in the form of local committees working under a central committee, for the co-ordination of the various organisations for dealing with the welfare of juveniles. The supervision of these committees has now been transferred to the Board of Education. In many centres such committees have been formed, and are doing exceedingly useful

work in the organisation of clubs, the collecting and broadcasting of information, and the encouragement of smaller social organisations. Whether the Juvenile Organisations' Committee is the complement of the Care Committee, or whether they merely overlap, is a matter open to some doubt.

Church Clubs.—Almost all churches of every denomination now run or organise clubs, and it is often possible to bring an unattached child into contact both with the club and with the church behind it. At the age when the adolescent comes under the eye of the Care Committee, he is especially open to religious influence. Sometimes it has been found possible to arrange a church society for older girls or young men which is worked on undenominational lines. It will then appeal to those parents who fight shy of an avowedly denominational organisation.

Salvation Army.—Clubs managed by the Salvation Army, usually in association with a Sunday School, are to be found in most poor districts. Their special nature and methods make them suitable only for certain carefully selected types of youngster.

Y.M.C.A.—Prior to the war the Y.M.C.A. had a reputation for being the haunt of the "goody-goody" youth of an anæmic type. During the war it sprang into the gap between camp and barrack life and home influence. It has learnt its lesson from war-time experience, and now seeks to establish clubs—for boys, among others—in every district. A good deal of opposition has been raised by the churches and other religious agencies, but none the less there is a distinct call for unsectarian work. The Y.M.C.A., while pro-

viding a religious backing to its activities, makes a particular appeal to those who do not wish to end the evening with a prayer meeting or service. There seems no reason why it should not become a useful ally to Care Committee and Choice of Employment Agencies.

Boy Scouts and Girl Guides.—The aim of these movements is to give to every boy and girl, and especially the poorest, the opportunity of self-development in:

(1) Physical health through self-care.
(2) Character and intelligence.
(3) Handicraft through technical skill.
(4) Happiness through the realisation of beauty in Nature and Art.
(5) Service for others.

They accept active effort on the part of the boy rather than passive reception from without. There will always be found a larger number willing to become Scouts than the supply of Scoutmasters will permit. There is, therefore, some need for selection of the boys to be drafted into Scout troops. The Scout movement, more than any other, caters for the "gang spirit" in youth, and it is to the street arab, actual or potential, with leading or organising ability, that it offers even more good than to other types of boy.

There might be considerable scope for Care Committees in organising introduction courses for Club leaders and helpers. Some local education authorities take a share in organising such courses for teachers; why should they not, from time to time, initiate training classes for laymen in the same way as physical training courses are now organised for teachers?

Boys' Brigade.—This is an older institution, on lines somewhat similar to those of the Scout movement. The main difference lies in the military organisation: that of companies and battalions which it adopts usually in association with some religious body. Bible lessons are a regular part of its "curriculum."

Libraries.—Apart from introducing children to clubs, the helper may do much by persuading them to attend the local library, and by guidance in the selection of books. It should be easy to create some system through which both juvenile exchanges and clubs might draw on a central library for supplies of books. General experience points out the fact that the best introduction to good literature is through the pages of the best adventure stories, and that girls show a strong partiality to boys' adventure tales.

§ 6. Some Other Forms of Social After-Care.

Home visiting often reveals the existence of special circumstances which require attention—bad housing, cruelty, poverty, illness. Exceptional cases such as these should be reported to the Care Committee by a helper, in order that action may be taken by it, or that the case may be referred to some official organisation to be dealt with; or they may be noticed and dealt with by a helper on his own initiative. The course adopted depends entirely on the case and the facilities for the remedy.

Poverty is perhaps the commonest of these, and at the same time the most difficult to deal with from the Care Committee's standpoint. To administer direct relief is to surrender its present fortunate position of

being a non-charitable organisation, and only leads to overlapping. It is usual to pass on the necessary information to the proper authority, usually the Board of Guardians, and to advise the householder as to the most suitable body to whom to apply for relief. The helper is in a unique position to detect necessitous cases, because he does not arouse the pride of the visitee by direct enquiries into his domestic economy, though he gleans the information in discussing the child's future; for, as a rule, the parents' plans for their child will give him a clue to their financial position. When it is necessary, a word in the right quarter will do much good. During the trade depression of 1921–1922, Care Committee visitors in Birmingham were empowered to recommend applicants for free clothing tickets. Timely relief will often make it possible for the parents to allow a child to sacrifice a prospect of immediate high wages for the opportunity of learning a trade.

When a helper visits a house which is in a specially dirty condition, he should report the state of affairs, through his headquarters, to the Inspector of Nuisances or Sanitary Authority. It cannot be over-emphasised that action such as this should be taken in extreme cases only; otherwise Care Committee work will gain a reputation which will hinder its power for good in other directions. In cases of neglect, however, there are indications that regular visits by a voluntary worker will produce a greater improvement than official action by the N.S.P.C.C. In serious cases of a chronic nature, on the other hand, action by this latter authority is often more effective.

There are a number of cases which fall into rather special groups, such as children employed on the stage,

canal-boat children, out-relief Union children. They are probably best left to special sub-committees. The last class is usually dealt with together with the ordinary child, and it is useful for workers to remember that these children may, if they leave school before finding work, lose their relief. Little has been done so far for the after-care of either of the other classes referred to—both migratory classes. However great the need for it, attempts to help these have been usually frustrated by their peripatetic habits. But now that Choice of Employment schemes are to be general, there is no reason why co-operation between town and town should not provide a workable method of tackling the problem. Under the Canal Boats Acts of 1877 and 1884, all barges are subject to periodical inspection under the direction of local Medical Officers of Health. The Inspectors engaged on this work could easily co-operate with their local Care Committees.

§ 7. Juvenile Delinquency.

A most serious part of Social After-Care is the treatment of juvenile delinquents. We cannot enter here into the interior economy of the Juvenile Courts or the police system associated with them; we are concerned only with the out-of-court side of such cases. Juvenile delinquency has nothing in common with adult crime. In the latter case, assuming the criminal to be sound in mind, the degree of offence against the social laws is the criterion by which punishment is gauged. With the child it is different. It is not the "crime" which should be assessed so much as the forces behind it—environment, training, mental and

physical health—for only by concentrating attention on these can undesirable traits be eradicated. Further, the child should not associate his trial with the police court, nor, if possible, with the police. The court itself should be an ordinary room far removed from the ordinary police courts, while investigations before the trial and correction or supervision afterwards should be entirely dissociated from uniformed police and prison bars.

The Care Committee touches the young offender in three ways:

(1) In supplying reports on a child's previous record.
(2) In probation work.
(3) In the after-care of those who have left industrial or reformatory schools.

All investigations carried out between the " crime " and the trial are liable to be biased. It is, therefore, very important that all existing information on the delinquent's character and environment should be placed in the hands of the Bench, and for this purpose head teachers' and helpers' reports are extremely valuable. While it is usual for the police to enquire into the circumstances of the offence, these reports supply additional information on the character and disposition of the offender. Because of this, the Care Committees of some towns make it a rule to get into touch with club managers, ministers, and others who have intimate knowledge of the youngster, and to collect from them written statements of their views of the child as a person, not as an offender, to which the magistrates may refer after arriving at a decision as to the actual crime, but before passing a definite sentence.

It is often well that the club manager, or other responsible person, should be present in court when the case is being tried. He must, of course, obtain permission from the magistrates.

The following table, computed from a Report by the Juvenile Organisations Committee, shows the proportion in which delinquency is associated with other circumstances. The figures are based on returns sent in by the Magistrates' Clerks of several towns, and refer to some thousands of offenders.

Circumstance.	*Per Cent. of the Cases having the Circumstances Mentioned.*
Parents dead or deserted	46·15
Fathers absent	29·30
Mothers working	14·45
Position in School.	
Under Standard III.	5
,, Standard IV.	11
,, Standard V.	23
,, Standard VI.	30
,, Standard VII.	31
Members of a club	4·46
Earning under 10s.	10
,, 10s. to 20s.	34
,, 20s. ,, 30s.	23
,, 30s. ,, 40s.	4
,, 40s. ,, 50s.	2
,, over 60s.	2

(inflated wages during war period).

Showing Sex and Age of Offenders.

Age.	7	8	9	10	11	12	13	14	15	?	*Total.*
Boys ..	87	238	514	722	897	1,013	1,080	991	1,101	71	6,714
Girls ..	5	7	12	19	22	32	48	66	70	—	281
Total ..	92	245	526	741	919	1,045	1,128	1,057	1,171	71	6,995

The punishment can take three forms:

Detention, fine, or birch, or a combination of these.
Detention in an institution, such as a remand home.
Placing on probation.

In the latter case the Court's Probation Officer and the Care Committee are able to work together. Either partial responsibility may be handed over to a voluntary worker, under the supervision of the Probation Officer, who is primarily responsible, or the volunteer may confine himself to getting the child attached to suitable organisations, while the official watches over its general behaviour. The voluntary helper should, above all, aim at being a friend to the child, and should always, if possible, avoid disclosing the fact that he knows that the offender is on probation. Generally, the work of the helper should be carried out by tact and friendly persuasion only, and if it becomes necessary to act officially, the matter should be referred to the Probation Officer. He should never attempt to control the probationer with threats of punishment, for he is not an official of the court, and only has such power as he may possess by his own personal influence.

Under the Probation of Offenders Act of 1907, Justices of the Peace may, in certain cases, instead of convicting, order the offender to be discharged on his entering into a recognisance to be of good behaviour, and to appear for conviction and sentence when called on, within a period to be stated, which must not exceed three years. The court can further insist that during that period the probationer shall be under the supervision of such person as may be named in the order. This is how the Probation Officer and the Voluntary

Worker come into the field. The following are commonly made parts of the order:

(1) Prohibiting association with undesirable persons, or frequenting undesirable places.
(2) Enforcing abstinence from intoxicants.
(3) And otherwise securing that the offender shall lead an honest and industrious life.

One of the weak features of our treatment of young offenders is that only a few institutions exist for the care of those who are deficient in mind or body. The Industrial Schools and Reformatories only take those who are normal, although certain institutions for mental defectives are certified as industrial schools. Thus, many of the worst cases are returned to their homes, and unless plenty of wise and informed probationary care is forthcoming, a proportion of these will eventually qualify for prison. Cases of this sort need very special attention.

§ 8. Industrial Schools' After-Care.

The experiment has been tried, with very great success, of placing the after-care of children discharged from industrial schools in the hands of a special committee. Such a committee is, of course, a replica of the usual Care Committee, but with rather specialised functions.

Another type of institution of which there is a shortage is the home or school for the semi-defective, the cases on the borderland of physical infirmity or deficiency, those who are not sufficiently abnormal to gain entrance into a home for the really defective, but are enough so to be very susceptible to adverse environment. People in this category form a large proportion of the special

cases met with by all social workers, and the Care Committee worker is well advised to give special attention to any such cases which may come his way.

Children who come under the care of the special committee mentioned above may be roughly divided into these groups:

(*a*) Children on licence from an industrial school.
(*b*) Children temporarily or permanently discharged from an industrial school on account of sickness.
(*c*) Children discharged on licence from an industrial school for mental defectives.
(*d*) Children whose licence has expired, but with whom it is thought advisable to keep in touch.
(*e*) Children discharged from a reformatory.

In the main, the care of these children consists in keeping a probationary eye on their general progress, introducing them to suitable religious and social organisations, placing them (where necessary) in residential homes, and finding them work. This last is, however, carried out by the industrial school authorities prior to their discharge on licence; but as the children often proceed to various parts of the country, it is an obvious advantage to have the assistance of an official organisation in any particular district. Children from industrial schools usually have considerable skill in some craft, and, if properly looked after, have the makings of good craftsmen. Some schools make their own arrangements for the after-care of their inmates, but, as a rule, the co-operation of a Care Committee is welcomed, notification of discharge being sent to it, and it, in return, providing periodical reports of the progress of each case for the information of the school and the Home Office.

§ 9. Social Investigations.

An important field of Care Committee work is the investigation of special social questions affecting adolescents. Such enquiries have recently been carried out on the problem of the cinema, smoking, employment of young persons, street trading, stage performers, and so on. If the problem to be tackled is a general one, involving the collection of a considerable mass of data, it is best done with the help of a complete committee; where it is of a more limited nature, it falls into the hands of a small body of keen workers and their official colleagues. The need for the investigation of many problems is so urgent that no opportunity of interesting social workers in original research should be lost, especially as the average Care Committee is in a unique position for the collection of data. There is a great need for some central bureau for the exchange of information gleaned by the authorities in different districts.

§ 10. Medical After-Care.

Up to the age of fourteen the child's health is more or less looked after by the school medical service. At sixteen the youth or lass comes under the medical supervision of the National Insurance Acts. Between these ages, except for possible prohibition of a particular occupation by the factory surgeons, the State takes no medical responsibility on behalf of the normal child. Care of this kind is left to the parents' own initiative, and this is too often negligible. The dangers of the gap are obvious. There is at least the same liability to illness as at any other stage in life. Treatment begun at the school clinic is often discontinued, and transition from

school to factory environment is frequently followed by ill effects, and in any case is bound to cause considerable mental and physical strain. Lastly, mental and physical changes peculiar to this age may materially affect the child's health. There is here a field for Care Committee activity, and for legislation.

The visitor's first duty should be to see that the earlier treatment is followed up, either at the same institution as that previously attended, or at another. To do this he must be in close touch with the school clinics, and he should have at his command plenty of hospital and dispensary tickets. Many subscribers in the possession of tickets are only too glad to know that they will be disposed of to the best advantage, and will willingly hand them over to a Care Committee. School clinics are not eligible for Government grant in respect of patients over elementary school age, thus making their use by Care Committees a matter for local generosity.

The same agencies must be called into service in dealing with new cases, but until such time as adequate provision is made for young persons, difficulty will be experienced in securing treatment. There are many minor cases where the helper's knowledge of elementary medical and sanitary matters will supply advice enough, if not to cure, at all events to effect a considerable improvement. Despite Municipal and State enterprise, there is still an astonishing lack of knowledge of the elementary laws of health, and the After-Care worker, even though he has no special medical qualification, has plenty of scope for useful work. If he understands the health conditions in various trades and the conditions in individual local factories, he should be able

to give advice both on a child's suitability for an occupation and on precautions to be adopted in trades injurious to health. The following are some such precautions which should be taken by those engaged in certain industries. In addition, reference may be made to the table on p. 59, and to the remarks on trades marked " Injurious " on p. 162.

(1) Occupations in which there is considerable risk from foul air and small particles, such as brass-casting, brick-glazing, manufacture and decorating of china, file-cutting by hand, grinding of metals. Fans to change air and extract particles should always be in good order, and outdoor activities should be indulged in in spare time.

(2) The following processes give rise to injurious fumes, and the maximum of fresh air should be obtained both in and out of working hours: Extraction of arsenic, chemical works, manufacture of electric accumulators, vitreous enamelling, lead smelting, manufacture of patent fuels containing pitch, tinning of metal articles, bleach and dye works, dipping of lucifer matches.

(3) Rapid lung disease is common in the following trades, and again fresh air is desirable: Brass-casting, metal-grinding.

(4) The manufacture of chromate and bichromate of potassium or sodium is liable to cause perforation of nasal septum and ulceration of different parts of the body.

(5) There is a possibility of infection with anthrax from hair, wool, or hide, and of smallpox from rags and old paper. Perfect cleanliness of workplace and body is necessary.

(6) Lace manufacture and other similar occupations require the worker to maintain a cramped position, and thus cause undue strain on the heart and lungs. Frequent rests, and change of attitude, together with outdoor exercise, are desirable.

(7) Working in damp places—*e.g.*, in soaking material, laundries, damp workshops, etc.—is liable to bring on rheumatism and lung troubles. Open air, dry clothing, good boots should be secured.

§ 11. Certifying Factory Surgeons.

In the execution of their duties these officers meet with many medical cases which require the sympathetic care of a voluntary worker. The certifying surgeons have no authority to undertake the medical care of such cases, and it is best, therefore, that they should notify the local Care Committee. To do this imposes an extra burden on these officials, and although attempts have been made to increase their remuneration, no definite action has yet been taken. The reporting of such cases must, therefore, be a voluntary act of good-will on their part. In the great majority of such cases young people are found unfitted for their work by reason of medical defect or lack of personal cleanliness. On receiving notice of the surgeon's refusal to allow a boy or girl to continue in its present employment, the helper should at once get into touch with the child, and advise both on treatment and on more suitable forms of work. Dismissal from these causes will create a sense of failure which only friendly interest can cure.

§ 12. Special Schools' After-Care.

In many districts a branch of the After-Care organisation undertakes the care of children who have left special schools for the physically or mentally defective.

Mental defectives, discharged from special schools, fall under the legal guardianship of the local Statutory Committee for the Care of Mental Defectives, and this

authority may either co-operate with or delegate its visiting functions to the Care Committee. Where this is done, a financial grant is made by the local Statutory Committee. The work of caring for these children is of a specialised nature, and is therefore often left in the charge of special visitors.

Defective children are often boarded out with approved foster-parents, and then the helper not only keeps in contact with the child, but with its guardians as well.

The same course is often followed in the care of the physical defectives. It is not easy to find situations for them, especially in times of slack trade, when the chance of success for defectives is correspondingly lessened. It is important to effect a complete canvass of employers who have work of a suitable nature, and who are from time to time willing to employ such children.

Helpers on ordinary Care Committees frequently meet with cases which would benefit from attendance at a special institution, but who have, through lack of accommodation or neglect, escaped proper supervision. It is sometimes possible to remedy matters at a later age, and the helper is referred to the legal position stated on p. 150 *et seq.*

§ 13. Educational After-Care.

Matters educational are dealt with at length in Chapter IV. It need only be remarked here that every effort should be made by all concerned to make the child keen on further education, and to acquaint him with the facilities provided in the area in question.

The table given below, and compiled by the Oldham Juvenile Employment Committee, gives some idea of the causes of failure to continue education beyond the elementary school stage. The data are based on enquiries made of the parents.

	Boys.	*Girls.*	*Total.*
Personal and parental indifference ..	37	29	66
Promised to attend	29	20	49
Commenced to attend	29	22	51
Parents would endeavour to persuade	21	17	38
Too tired to attend after day's work	18	19	37
Physical inability to attend	11	15	26
Hours of employment did not permit	11	10	21
Required to assist at home.. ..	3	16	19
Music study	5	4	9
Attending other educational institutions	2	5	7
Attending day classes	1	—	1
Could not afford to attend	—	2	2
Newspaper vendor	1	—	1
Unable to benefit	1	—	1
Removed or left town	10	5	15
	179	164	343

The present procedure for referring children to evening schools varies from town to town. The initial step, of course, lies with the head teacher of the elementary school, but his work may with advantage be supplemented by the Care Committee. The following remarks are taken from a London County Council Memorandum on After-Care, and may be regarded as typical:

Pupils are seen by the school conference, and after due enquiry suggestions are made as to the type of evening institute which they should attend. A copy of the school-leaving form is forwarded to the responsible teacher of the appropriate evening institute. The head teacher is expected to hand to the pupil when about to leave school a card entitling him to the evening institute selected at the school conference.

The responsible teachers are asked to forward to the district organisers on forms provided for the purpose:

(*a*) The names and addresses of the day-school pupils who have been admitted to the evening institute, but for whom no school-leaving forms have been received by them; and

(*b*) The names and addresses of day-school pupils for whom they have received school-leaving forms, but who have not applied for admission to the evening institute.

It cannot be too strongly urged that securing attendance at an evening institute depends first and mainly on the head teacher of the day school filling up at the conference, or afterwards, and handing to the boy or girl on leaving, the free admission card. Where this card has been duly issued, but the boy does not enrol, the question becomes one of supervision, and a home visit will, whenever possible, be arranged. . . .

Even when a child has enrolled at an evening school, there is no certainty that he will continue an active member to the end of the course. Care Committee workers can do much by visiting absentees, and for this reason continued close co-operation between the evening school and the Care Committee is desirable.

Vocational After-Care consists of fitting the child to the job, and will be dealt with in the following chapter.

It is of particular importance to help the young person who, for some reason or other, has left his previous employment. It frequently happens that a young worker leaves, or is dismissed from, suitable work owing to some slight dissatisfaction between himself and his employer or foreman. It is sometimes

advisable and possible to effect a reconciliation, and where this is not done, supervision should be exercised until the boy or girl has recovered from the effects of the crisis in his life. Adolescents of the age with which we are dealing are very apt to magnify a molehill into a mountain, and throw up a good job without fully understanding the consequences.

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CHAPTER III

CHOICE OF EMPLOYMENT

§ 1. The Unaided Selection of a Vocation.

Organised choice of employment grew out of a realisation that natural selective forces worked ineffectively. It is important to see just what these forces are, and wherein they fail.

Probably the first of these, and certainly the most discussed, is that of wages. A child is due to leave school, after being for fourteen years a non-contributory member of the household. The average parents' natural desire, unless they are long-sighted or well-to-do, or both, is to obtain the largest immediate return for what they have invested in their children's upbringing. The result is that the child is too often plunged into the work which has the highest possible initial wage—in other words, into a "blind-alley" occupation, from which, when he demands an adult's wage, he will be dismissed, untrained and a drug on the labour market.

The economics of blind-alley occupations perhaps deserve to be once again stated. Many occupations, such as parcel delivery, newspaper selling, easy repetition work, etc., are easily accomplished by young and inexperienced workers. Because they are young and inexperienced, they are obtainable at lower wages than those demanded by adults, and in times of normal trade it pays employers of such labour to attract youngsters by offering a premium in the shape of wages

slightly higher than those otherwise obtained by children of school-leaving age. When the employee reaches the age of eighteen or thereabouts, increased home responsibility and oncoming marriage necessitate a considerable increase in wage. As there is another lad of fourteen waiting for his job, he is dismissed, with an adult's responsibility approaching, and no trade skill with which to insure a place in the ranks of labour. Further, he is then beyond the age when learning is easy, even supposing that he can afford to learn. He is condemned to a life of hewing wood and drawing water. True, he may be only fitted for unskilled work, but he may, on the other hand, possess abilities worthy of higher employment, and just because he had to seek initial high wages, has lost his chance of it. So long as better situations are vacant, only those of low mental or physical calibre, who are by nature unfitted for skilled work, should be allowed to enter occupations which offer no prospect of advancement.

The parent is not the only party responsible for mistakes of this sort. Elevation to the world of work is a welcomed change in the life of the average elementary school child, and high wages, sometimes in the face of wise parental advice, prove an irresistible attraction. The division of responsibility between parent and offspring depends to a great extent on the individual household. If, as is notably the case with the Irish and Jews and most better-class English artisans, the entire family income is pooled, it is the parents who are most tempted to increase the income side of their budget; although, where the last class are concerned, common sense and acquired knowledge often act as an antidote to greed at the child's expense. If, on the

other hand (which is the exception), the young wage-earner retains a considerable portion of his earnings, the temptation lies strongest upon him. It is only when we are sure with whom—the parent or child—the danger lies, that we can encourage a wise outlook.

In the case of parcel delivery, the average working period of a driver is forty years, and of an attendant boy four years. The following table, taken from actual firms, shows the chance of absorption of boys into the ranks of drivers. The figures speak for themselves:

	Firm				*Average.*
	A.	*B.*	*C.*	*D.*	
Drivers employed ..	71	30	18	13	—
Boys employed ..	35	7	18	13	—
Calculated number per 100 boys who will become drivers ..	20	42	10	10	15·5

The occupation of the parents is another factor of importance. When the parent is satisfied with his or her own employment, there is a natural tendency to draft the son or daughter into the same trade, if not into the same firm. There is much to be said for encouraging this, for not only does the chiid benefit from closer parental oversight, but, because the parent is satisfied with his employment, the chances are that the employer is satisfied with the parent, and will, consequently, take an interest in the child. Many smaller firms encourage this family tradition, and maintain that by so doing they obtain better service. With very large firms, unless the works are situated in the employees' own residential village, this rule cannot operate to the same extent, although the foremen often take the place of the employers in this respect. It still remains

exceedingly doubtful whether the advantages of this system compensate either employer or worker for the loss due to misfits. Inherited characteristics and childhood influences may perhaps have considerable bearing on this question, but up to the present there has been little exploration into this branch of a large and involved subject.

Choice of a vocation is limited as well as influenced by locality. It is limited because certain areas are almost exclusively devoted to a particular industry. In towns such as Oldham the majority of workers will be employed on textile work, in Sheffield at steel works, and on the Tyne in shipbuilding. Staple industries become almost as predominant when we take particular areas of a town, such as the jewellery quarter of Birmingham, or the tailoring areas of East London. Here the task of selecting a vocation is, to a considerable extent, confined to the various branches of a single industry. And here, again, the practicability of a scientific system of guidance and selection becomes much greater. The comparative paucity of occupations and the uniform demand of the employers enable the bureau to exercise a more careful and detailed selection than is otherwise possible.

Daily travelling of any distance to and from work is not, as a rule, popular, and may often be physically harmful to the young and growing worker. There are, however, times when employment of the desired kind can only be found at a distance, but travelling often deters parents from consenting to a desirable occupation, though the difficulty may be solved by careful planning. A factor, often of decisive importance, is the facilities provided by a firm for meals and cloak-room accommodation.

Locality has also a more subtle influence on employment than mere limitation of the choice of work. It is found that residence in a particular street will often cause a predisposition towards a special class of work. The cause of this, though of an intricate nature, is probably derived partly from the principle that "birds of a feather flock together," and partly from continual discussion among the inhabitants as to the merits of particular occupations. This latter process is often found in a school, where all the children leaving want to be "carpenters" or alternatively "electrical engineers." Place of abode, combined with local knowledge on the part of the "counsellor," is a useful aid in determining which of several candidates is the most suitable for a position.

Last, but by no means least, is the tendency to go to places where friends or relatives already work. The most popular manner of obtaining employment for juveniles is for parents or even the friends of the young would-be worker to "speak for" him. In some ways this succeeds, because (as in the case of working under the same roof as the parent) speaking for a friend usually denotes satisfaction on the part of the worker, while the employer is glad to obtain the friends of those with whom he, in turn, is satisfied. "Probably," he says, "the friend is also a good worker." At the same time, this system offers no scope for positive selective methods, although some rough selection by ability is undoubtedly involved, and it fosters the inefficiency which ever results from filling situations by means of influence. This method will remain paramount until such time as local Choice of Employment Authorities can prove to employers that their own system is the more efficient.

Being "spoken for" by friends hardly above the applicant's own age is a common practice, especially among girls, where the mother stays at home, and consequently cannot speak for her daughter in the same way that an employed father can speak for a son. The forces at work are several. It may come sometimes from friendliness between girl and girl, sometimes from the working, good or bad, of the gang spirit, or even from the attraction of morbid friendships or environment. Often where an employer or his manager is either slack or ignorant, or lacking in moral qualities, a factory (more often a department of it) may become a hot-bed of immorality, and recruits, drawn in by existing employees, soon catch the prevalent moral condition. For this reason alone, placings through these means require very careful watching.

The prevalence of haphazard methods of selection is due to many employers being unable or unwilling to find a better. But there are other obvious reasons. Parents frequently do not understand how to enter any trade except their own, nor do they care to choose for their children a career apart from immediate monetary considerations. Then again, too much faith is placed on the child's powers to select a trade for itself. Young people know very little about themselves, and when the day comes that they discover their real strong points and their weaknesses, it is often too late. The popular trial-and-error system of letting a child attempt to find his feet by excursions into a number of trades involves too great an expenditure of time. They have usually been drawn into the current of their first vocation, and have given so much energy to prepare for a specific career that they cannot compass a complete

and effective change later on. The usual scheme of education gives a child little chance to find himself. Preference for a particular school subject is influenced by too many accidental circumstances—by the personality of the teacher or method of instruction, by suggestions from surroundings and home tradition, etc.—that beyond giving a possible clue to the most suitable occupation it does little to indicate the mental qualities of the individual. In America, and to a less extent in this country, steps have been taken to fill the gap by giving scholars in the higher standards instruction about trades, both by lectures, lantern talks, conversation with a vocational expert, and visits to factories, as well as by giving a bias to the ordinary school subjects. Neither teacher nor helper has full knowledge of industrial conditions, or the time and apparatus for explaining them. Their efforts require supplementing by vocational experts who will describe a wide variety of trades long before the child leaves school. There is then time for child and parent to think over the situation before it becomes an urgent problem.

The Bureau of Vocational Guidance (Graduate School of Education), University of Harvard, issues a syllabus and sample lessons on vocations for use in schools. In outline it comprises:

(1) Subject-matter for the class in occupations.
(2) Methods of teaching occupations.
(3) Outlines for the study and discussion of occupations.
(4) Matters of records for vocational counselling.
(5) List of common occupations.
(6) Vocational guidance score cards.

(7) Sources of material for the class in occupations: a brief bibliography of books and articles for pupils and teachers.

(8) Sample lessons in occupations:

(*a*) How workers help me.
(*b*) Why people work.
(*c*) How educated workers give us better service.
(*d*) Conductor and motorman.
(*e*) The electrician.
(*f*) Florist and nurseryman.
(*g*) Stenographer.
(*h*) Salesman.
(*i*) Unemployment.
(*j*) Reporter.

(9) The necessity for vocational guidance before, during, and after vocational education.

§ 2. The Effects on Industry of a Proper Selective System.

Scientific fitting of the boy or girl to the job often not only benefits the individual employer and worker, but works for the good of the community by increasing efficiency with a resultant lowering of production costs, by improving the relations between master and man, and by eliminating needless inconveniences from the lives of both. Greater efficiency is obtained in the first place by increasing the worker's output. The man who is constitutionally suited for a particular operation will do his work with greater speed and accuracy than one not so gifted, but selected by rule of thumb, or by no rule at all, or because he was the first human being to come along. Also, being naturally suited for his work, he will be less fatigued. Take the case of two men engaged in hanging wall-paper: one

selected for the work because he has a straight eye, long and strong arms, and ability to balance on the top of a step-ladder; the other a paper-hanger by chance. The first man will clearly perform more work in a day than the second, for he will be able to hang each strip of paper straight at the first attempt, and also he will spoil less. Again, he will be able to reach to his work without frequently changing his own position or that of the ladder. He will not need to support himself with one hand while hanging paper with the other. The second man, constantly driven to exert himself, will soon be tired, and the more tired he becomes, the slower and less exact will be his work.

F. W. Taylor, the pioneer of Scientific Management, quotes the case where scientific selection was the main factor in obtaining from thirty-five girls 60 per cent. greater output than was previously obtained from 120 girls. Since this investigation was carried out, greatly improved methods have become available, and correspondingly more striking results have been obtained. Even where much cruder methods have been used—for instance, where selection has been based on scholastic attainments and general health reports—output has been increased from 20 to 50 per cent.

Labour turnover has a marked effect on cost of production. By labour turnover is meant the number of workers who leave and have to be replaced during a given period of time, compared with the total number employed—in other words, the rate of change of personnel. In many concerns this proportion is very high. As a consequence, no continued interest in the work or factory can exist, while the appointment and training of new workers is an expensive business. Not

only must advertisements or their equivalent be paid for, and a large employment department maintained, but training and early waste of material add to production costs. Suitable selection of work goes a long way to lessening labour turnover. Other considerations being equal, the odds are strongly in favour of the man who is suited for his work remaining at it for a considerable time. In Berlin these facts have led many of the larger firms to avail themselves of the Municipal Institute of Vocational Psychology. Selection, again, decreases labour turnover by reducing the number of accidents, cases of ill-health and dissatisfaction, etc. Some of the most progressive firms make a point of investigating every case of dissatisfaction or failure, in the belief that they are due to some form of misfit. They endeavour to ascertain just where the misfit lies, and to give the subject another chance in a new place.

The proportion of industrial accidents is closely related to the fitness of the workers for their work. Investigations have recently shown that some persons are more prone to accidents than others when engaged in definite trades. For instance, to take an obvious example, a man engaged in cutting out cloth shapes with an endless sharp steel band revolving at high speed is liable to lose his fingers if he is too interested in girls making up clothes in the same room. Accidents are most common among inexperienced workers (unless excessive fatigue comes into operation), and a proper selective system, by lessening labour turnover, tends to reduce accidents.

Again, general health and even specific illnesses are affected by the suitability or otherwise of the work in

hand. The consumptive is unfitted for work in stuffy rooms, and boys with a tendency to heart trouble are most liable to develop serious disease when engaged in heavy muscular work. Both individual and community gain by the avoidance of faulty placing. Efficiency and safety are endangered if persons of deficient mentality are allowed to work in responsible positions, such as driving tramcars or acting as nursemaids.

While selection of employment increases efficiency, it is generally found at the same time to increase wages. The increase may be anything from 25 to 100 per cent., and results from the reduced cost of production which is due to the greater productivity of the workers engaged. As the natural sequence of higher wages, an improved standard of living usually results, despite the occasional failure of the rule. It seems fairly certain that in most cases careful selection of work produces an improvement in general welfare, greater content with work, and an improved attitude to life in general. At the same time, it is more open to question whether the job for which a worker has the greatest aptitude is always the most acceptable to him. Experience has shown, particularly in the textile trades, that the operative with the greatest output is not always the most contented. Scientific choice of employment, if injudiciously developed, has this great danger, that it may make mechanical efficiency rather than content the criterion of success. The caution applied to the vocationalists in education may equally well be applied here: " Man does not live by bread alone, but by every word that proceedeth out of the mouth of God."

§ 3. Vocational Guidance and Vocational Selection.

This selective employment may be worked by two alternative methods. The first, with which we are more concerned here, is to take the worker as a basis, and to find what is the most suitable work for him—to practise vocational guidance. The converse method is to ascertain what personal qualities are necessary for the efficient execution of a given operation, and to select workers who have those qualities—*i.e.*, vocational selection. The difference between the two is important, and its significance will be clearer from two examples:

A girl applicant for work is found to have, among other personal qualities, poor educational qualifications, clean personal habits, good health, and great dexterity with her fingers, as well as a strongly developed sense of the artistic. It is decided that these qualities fit her for the finishing of high-grade chocolates, or delicate embroidery. She is advised to enter one of these trades. This would be vocational guidance.

A master printer wants to pick the best operatives for his linotype machines, and makes investigations to discover what qualities are possessed by the best of his present workers, and consequently what should be looked for in applicants for employment. He finds that quickness of finger action, ability to remember phrases for a short period, accuracy, good spelling ability, and a sense of the best way of displaying a page of type are desirable. He concludes that learners should be examined for these characteristics before engagement. He is then using vocational selection.

In both examples there is no attempt at a complete

analysis, and the important factors of future prospects and conditions of work have been neglected. In actual fact, these should receive careful consideration along with the purely technical questions.

§ 4. Eliminating the Unfit.

The scientific choice of workers is based on the detection and use of individual differences. Vocational guidance depends on their correct utilisation alike in their positive and negative aspects. The negative aspect consists in preventing those from entering an occupation who are obviously unfitted for it, while the positive goes further, and attempts to effect an exact fit between the job and its occupant. Although the peculiarities which may exclude certain persons from certain kinds of work are so many and varied that a complete classification would in itself fill a book, and although many are too obvious to need mention, the table given on pp. 59-62 may be of use.

Although not generally recognised in such a list as this, psychological conditions, such as dislocations and complexes, frequently lead to such serious inattention as to debar certain occupations. In the study of this question lies one of the fields of enquiry most needing the attention of the trained psychologist.

§ 5. Individual Differences.

Turning to the positive side of vocational guidance—*i.e.*, the selection of the *right* job for each individual—we find, of course, that a large range of abilities or aptitudes varies between person and person. It is their absence or presence which should help to deter-

Peculiarity.	*Sex.*	*Occupation Barred.*	*Remarks.*
Environmental :			
Poor homes	Boys and girls	Those demanding expensive training or equipment	See pages 30, 31.
Dirty homes	,,	Food manufacture, clothing factories, toilet article manufacturing, etc. Domestic service	Use should be made of After-Care workers' reports.
Irregular home hours	,,	Heavy work, long hours, and short meal-times. Travelling to work. Piecework with tendency to over-exert	Works having canteens are specially desirable.
Parents drink	,,	Work where child will not be well supervised. Same factory as parent	—
Illness at home	Boys and girls (especially girls)	Work which, on top of home duties, will overstrain	—
Child illegitimate	Boys and girls	Employers who might dismiss or penalise on account of this, especially domestic service	
Foreign nationality	,,	Trades where there are the following nationalities which fail to mix well:	English must be good or not needed.
		N. Italians. S. Italians. Germans. English. Irish. Negroes. Jews. English.	Varies most in different localities.

Peculiarity.	*Sex.*	*Occupation Barred.*	*Remarks.*
Personal :			
Dirty	Especially girls	Food and clothing manufacturing. Domestic service, stores, office, shop. Printing and stationery, etc.	Previous history is important in deciding if a talk and bath will improve permanently.
Unclean hair	Girls	Ditto, and any trade bringing girl into contact with others	Ditto.
Poor clothing	Boys and girls	Office, shop, etc., and work in exposed position, overheated or damp factory — *e.g.*, foundry, bakery, errands, glass workers, street stalls	Clothes may be supplied by Police-Aided Charities, Teachers' organisations, etc.
Facial faults	Girls	Saleswomen and exhibitors, stage, waitresses	Frankness in first place saves later disappointment.
Serious periodical indisposition	,,	Where time off cannot be obtained, notably cash desks, and where there is no rest-room	—
Moral :			
Dishonest	Boys and girls	Where in charge or having access to money or valuables: cash desk, bank, service, messenger work	—
Sex immorality	Boys	Work with girls or older women	Thorough supervision desirable.

Peculiarity.	*Sex.*	*Occupation Barred.*	*Remarks.*
Moral:			
Sex immorality	Girls	Work with men, boys, or older women (unless specially selected). Night work, work far from home, stenographers, exhibitors, waitresses	Elementary school teachers can prevent these misfits.
Asexual	Boys	Work with single adult—*e.g.*, rivet throwing. Work with other lads in old rambling works—*e.g.*, brick works or collieries	—
Physical :			
Diseases of nose and throat	Boys and girls	Working with chromate or bichromate of sodium or potassium	—
Lung diseases	,,	Outdoor occupations with exposure to cold and damp. Very hot or dry places. Badly ventilated places	—
Skin diseases	,,	Where food is to be touched—*e.g.*, baking, waiting, making of clothing, and delivery of newspapers. This is especially so in case of contagious diseases—*e.g.*, scabies	—
Eye diseases and defective vision	,,	All work involving eye strain—*e.g.*, mining, watchmaking, sewing, tailoring, drawing, weaving, etc.	—

Peculiarity.	*Sex.*	*Occupation Barred.*	*Remarks.*
Physical:			
Deafness	Boys	Wherever there is excessive noise—*e.g.*, boiler-making, riveting, forging, etc.	—
Fits	Boys and girls	Any trade where there is a liability to accident either to employee in question or to others—*e.g.*, hoists and lifts	—
Chorea	,,	Heavy work. Labouring, etc.	—
Neuralgia	,,	Damp and cold atmospheres	—
Tubercular lungs or glands	,,	Indoor occupations	—
Digestive disorders	,,	Sedentary and indoor occupations	—
Heart disease and hernia	,,	All occupations involving muscular strain—*e.g.*, labouring, athletics, active service, etc.	—
Debility and anæmia	,,	Indoor work	—
Round shoulders and spinal curvature	,,	Sedentary occupations—*e.g.*, clerical work, tailoring, bootmaking, etc.	—
Flat foot	,,	All standing occupations—*e.g.*, cooks, shop assistants, delivery, etc.	—
Rickets	,,	Lifting of heavy weights and excessive muscular exertion	—

mine the selection of an occupation. While there are in all individuals inherent aptitudes which, once developed, play an important part in vocational fitness, they are often, and especially during adolescence, overlaid by the effects of environment and the actual stage of development. We have to find the deep-rooted qualities, not those which, on the surface, seem to predominate. Their absence or presence, however, does not seem to constitute the predominant factor in proficiency at an early age. The young worker is too strongly influenced by other factors—good health, enthusiasm, home influences—to allow his more intrinsic but as yet dormant qualities to assume a dictatorship. It is in later life, when he has settled down to everyday factory life, and has lost the keenness of youth, that his native psychological and physiological aptitudes come to the front. If this is so, the vocational guidance of youth must take a long view; it must not try to seek what seems the best at the moment, but must look forward into the subject's whole life, to the time when his proficiency will depend more on his native qualities than on passing circumstances of adolescence. Much more needs to be known as to what are the strongest stimulants which work at different ages.

While physiological and psychological qualities will eventually play a vital part in the choice of employment, it must be remembered that industrial psychology is yet in its infancy, and that although in some cases definite rules may be laid down, there is still much difference of opinion, and lack of data is common. We have to be very careful not to place too much reliance on the results of unproved tests, and the need for further

research is very urgent. Mr. Muscio* writes in No. 12 Report of the Industrial Fatigue Research Board that:

"A more adequate method of investigation suggests itself. Large numbers of young persons who are about to enter industry might receive a thorough psycho-physiological examination. As far as possible, they should be re-examined annually for several years: first, to guard against errors, always possible in a single examination; and, secondly, to determine what changes, if any, are produced in the ability to carry out different tests by working at different occupations. During a period of from seven to ten years, an exact record should be kept of the industrial history of those who are examined, and their success or failure in different occupations should be correlated with their psychological constitution. Within a decade, an investigation of this nature, if carried out systematically and extensively, should lay a satisfactory scientific foundation for a national vocational guidance policy.

"The points to emphasise concern—

"(1) The exact nature of the problem to be investigated; and

"(2) The method of investigation.

"In view of the investigations above reviewed (Report No. 12), the problems may be stated as follows:

"A. To determine the general intelligence level required by each occupation. The determination could possibly be made by means of L. M. Terman's modifications of the Binet tests.

"B. To determine the special capacities (including physiological characteristics) required by each occupation.

"C. To determine the relation of temperamental qualities to efficiency in different occupations.

* The reader will be well repaid by a perusal of the cited series of reports, and especially so in the case of Nos. 12 and 16.

" Concerning general methods it is suggested:

" D. That investigations similar in type to those reviewed (see similar review on p. 171) should be carried out in as large a variety of occupations as possible.

" E. That, in addition, extensive investigations, to be continued over a number of years, should be inaugurated, for the purpose of making psycho-physiological measurements of the young persons in different occupations, and of comparing such measurements with occupational records."

The industrial psychologist, be he teacher, employer, or municipal officer, has at first to confine himself to the elimination of obvious misfits. He will only slowly reach the stage where negative warning may be superseded by positive suggestion. He is at the present time just entering this stage. The final responsibility cannot be assumed by the psychologist for the reason that a worker's general disposition and environment may outweigh his personal aptitudes, unless, indeed, the psychologist makes his field much wider than the investigation of abilities alone. He cannot hope, however, to cover this wider field until such time as the pure side of his science has taken many big forward steps. At the present time there are varying degrees of exactitude in actual selective methods, ranging from a rough " look over " the applicant, combined perhaps with a test in writing and arithmetic, to a scientifically conducted application of carefully prepared physical and mental tests. A few examples will illustrate.

§ 6. Application Form Method.

Messrs. Mather and Platt, of Manchester, require all applicants to fill up the following questionnaire. Selection is based on the answers given, the elementary

school head-teacher's testimonial, and, when necessary, the results of tests for general intelligence and accuracy:

APPLICATION FOR EMPLOYMENT (BOYS).

Name .....

Address .....

Date of birth .....

Education { School ..... Left ..... Standard or class ..... Examinations passed .....

.....

Parent or guardian's name and occupation .....

Previous employment. Why did you leave? .....

Have you taken evening classes? Give particulars .....

What do you wish to be? Why? .....

Do you belong to a boys' club? Give particulars .....

What are your hobbies? Why? .....

Who recommended you to apply here? .....

Give names and addresses for reference .....

Have you any relatives in the works? .....

Are you willing to attend classes in the works' school? .....

On the completion of a course in the works' school, are you willing to attend evening classes until you are twenty-one? .....

§ 7. Interview, School Record, and General Test Method.

Messrs. Debenham combine the school record with the following test used as a rough gauge of neatness, accuracy, and common sense, and a carefully conducted interview:

After each word printed below you are to write some word according to the further directions. Write plainly, but as quickly as you can. If you cannot think of the right word in about three seconds, go ahead with the next.

(i.) Write the opposites of the words in this column, as shown in the first three:

good	— bad	up
day	— night	smooth
up	— down	early
long		dead
soft		hot
white		asleep
far		

(ii.) Write words which tell what sort of thing each word named is, as shown in the first three:

lily	— flower	quinine
blue	— colour	beef
diamond	— jewel	canoe
oak		banana
measles		Atlantic
July		Alps
shark		

(iii.) Add 17 to each of these numbers. Write the answers as shown in the first three:

29 — 46	57	10	65
18 — 35	68	61	41
60 — 77	74	71	50
64	53	33	42
69	67	38	58
62	25	28	

(iv.) Get the answers to these problems as quickly as you can:

1. What number minus 16 equals 30 ?
2. A man spent $\frac{2}{3}$ of his money and had 8s. left. How much had he at first ?
3. At 15 pence a yard, how much will 7 feet of cloth cost ?
4. A man bought land for £100. He sold it for £120, gaining £5 an acre. How many acres were there ?
5. If $\frac{3}{4}$ of a gallon of oil costs 9d., what will 7 gallons cost ?

(v.) Place in the brackets preceding each English proverb the number of the African proverb to which the English proverb corresponds in meaning.

English Proverbs :

( ) Married in haste, repent at leisure.
( ) Answer a fool according to his folly.
( ) One swallow does not make a summer.
( ) First catch your hare.
( ) Adding insult to injury.
( ) Curses come home to roost.
( ) Distance lends enchantment to the view.
( ) We can all endure the misfortunes of others.

African Proverbs :

(1) One tree does not make a forest.
(2) " I nearly killed the bird "; no one can eat " nearly " in a stew.
(3) Full-belly child says to hungry-belly child: " Keep good cheer."
(4) Distant firewood is a good firewood.
(5) Ashes fly in the face of him who throws them.
(6) If the boy says that he wants to tie the water with a string, ask him whether he means the water in the pot or the water in the lagoon.

(7) The ground-pig said: " I do not feel so angry with the man who killed me as with the man who dashed me on the ground afterwards."
(8) Quick loving a woman means quick not loving a woman.

In effect, the above method consists of a rough estimate of the level of general intelligence. A number of firms using a selective system place great, and sometimes entire, reliance on the general intelligence of applicants, and estimate it by one of the several recognised series of tests, such as Terman's modification of the Binet-Simon series. In practice, the use of intelligence tests varies considerably. Probably in the majority of cases a general gauging such as the above is employed; in others, a full series of tests is used, aiming either at a grading according to a score of marks or by psychological age. A further refinement now adopted is to determine the minimum score gained in a series of tests which will qualify for a particular occupation, and not for all the occupations provided by a firm. It would seem that this gives a very reliable criterion of suitability, in so far as intellectual qualities are concerned, although in common with other tests correlation with physical, social, and other factors is necessary for proper selection. Thus, in a departmental store, one series of intelligence tests would be given to all applicants for employment, but, for instance, a score of 90 points would qualify for a salesman's job, while 80 would secure entry into the costing department, and perhaps 50 into the packing and mailing departments.

A minimum intelligence is not, however, the only limiting factor. Curious as it may appear, there is a

maximum intelligence limit to some occupations. In certain types of selling, for instance, where the work is largely routine, the remuneration moderate, and the opportunities for promotion few, it is found that in general the brighter applicants leave the employ of the concern before they have learnt enough of their work to earn their wages. They become dissatisfied and seek fresh employment. The same point has been observed in some American cities where it has been found that police inspectors have a lower intelligence than constables. This seems to be due to the fact that the better type of constable leaves the force for work that has a greater scope before he has time to receive promotion.

In all cases general intelligence tests should be used with the greatest care. No important decision should be made on the basis of a group test alone; and especial care should be given to the assignment of special curricula which should only be used after examination by an expert psychologist.

§ 8. The Blackford Employment System.

This system of fitting the worker to the job was developed in America by Dr. Katherine Blackford, and has been quite extensively applied by businesses on that side of the Atlantic, and occasionally, in a modified form, on this side. It is based mainly on peculiarities of disposition and character, combined to a lesser extent with definite physical and mental aptitudes. Briefly, the method adopted is to analyse both the man and the job in terms of the above, and then to effect the best possible fit between the two. The great fault appears to be in the fact that much of

the analysis of the worker must be carried out by the worker himself, and is thus liable to be inaccurate.* The following sample analyses show the type of factors abstracted from particular occupations:

Speciality Salesman.

Good digestion.	Tact.
Buoyant health.	Love of people.
Cheerfulness.	Initiative.
Enthusiasm.	Persistence.
Optimism.	Courage.
Pleasing personality.	Resourcefulness.
Verbal expression.	Patience.
Courtesy.	Understanding of human nature.

Screw Machine Hands.

Mechanical ability.	Ability to read blue prints.
Muscular strength.	Knowledge of micrometer.
Quickness.	Ability to grind own tools.
Accuracy.	Ability to set up own job.
Steadiness.	

Truckers.

Physical strength.	Dependableness.
Energy.	Good sense of location.
Intelligence enough to read and write English.	Good memory.

The analysis of the man is conducted to a great extent on the basis of noting his bodily make-up, and deducing from that his probable characteristics. This analysis is an interesting attempt to define personal traits in terms of certain physical variables deduced

* This system has recently been much criticised in America, and although definite evidence of its failure is hard to find, little value seems now to be placed in it, at any rate in its original form.

from hereditary and environmental conditions. The variables used are colour, form, size, structure, texture, consistency, proportion, expression, condition. The man's dossier takes the following form:

ANALYSIS.

Name..... Personal .....

Address..... Photo .....

Colouring.	*Form.*	*Body.*
Hair	Eyes	Texture .....
Eyes	Nose	Motive .....
Skin	Mouth	Mental .....
Beard	Chin	Vital .....
		Condition .....

Head.	*Hands.*	*Intellect.*
High	Flexible.....	Type .....
Low	Rigid	Capacity .....
Long	Hard	
Short	Soft	
Narrow	Short	
Wide	Medium.....	
Square	Long	
Round		

Energy ..... Vitality..... Endurance .....
Health .....
Dress .....

CONCLUSIONS.

Positives. *Negatives.*

....

....

Recommendations.....

.....

§ 9. Analogous Method and Psychological Analysis.

An extensively used method to prove an applicant's fitness for an occupation consists in subjecting him to a test which is calculated to reproduce on a laboratory scale the essential features of the occupation. Thus, would-be tramway drivers were required by Munsterberg* to manipulate successfully a set of printed cards to test their ability to judge the relative movements of their own and neighbouring vehicles. Selection on these lines has been used both in America and in some Continental countries with considerable success, and it seems reasonable to expect that it has a considerable future in this country.

The second sound modern method makes a list of the probable qualities required for a particular vocation, finds by means of psychological tests which of these abilities or aptitudes really do bear a considerable relation to fitness, and then applies these relevant tests to applicants for employment. The probable aptitudes are arrived at by a careful study of the methods of work, and by comparing existing workers of varying grades of proficiency. In both this method and the analogous method the desirable qualities are fixed upon by finding which tests correlate most highly with the proficiency of existing workers. Thus, when a provisional test or series of tests has been evolved, it is tried on people already engaged on the work in question, and before it can be considered reliable, a list of workers arranged in order of merit as judged by the tests must correspond closely with a list arranged in the same order as gauged

* Munsterberg: *Introduction to Industrial Psychology.*

by output, piece-rate wages, or some other safe criterion. When this result is obtained, the tests may be applied to would-be workers.

By way of example, the tests for typists evolved by J. M. Lahy may be quoted. Lahy experimented on eleven women who had had from two to eight years' experience of the work. He tested for the following capacities which were expected to make for type-writing efficiency (the results are shown by means of a mathematical conception known as the coefficient of correlation "*R*" opposite to each capacity in the list given below). It may be taken that the nearer that this coefficient approaches to +1, then the nearer does a list graded by the test in question approach to a list graded by some reliable criterion. When the coefficient falls to the value of 0, there is no correlation between the two lists, and the quality tested for bears no relation to proficiency. When it has a negative value, there is negative correlation, or the presence of the capacity in question detracts from proficiency in the occupation under consideration.

Immediate memory for concrete phrases ..	$R = +0{\cdot}60$
Immediate memory for digits	$R = +0{\cdot}27$
Muscular symmetry (tendency for the two hands to be identical in strength)	$R = +0{\cdot}68$
Tactile sensibility..	$R = +0{\cdot}77$
Muscular sensibility	$R = +0{\cdot}58$
Sustained attention	$R = +0{\cdot}18$
Sustained attention (tested by another method)	$R = +0{\cdot}14$
Auditory reaction time	$R = -0{\cdot}34$

Thus it will be seen that four of these seven qualities show considerable correlation with proficiency, and these four alone would be used in vocational selection. When the four are combined, the resulting ranking shows with actual efficiency a coefficient of correlation of +0·89,

or nearly +1, which would signify complete correlation, or an ideal test series.

Again, an investigation into breakages during the repeated handling of certain china articles led Dr. Mills to conclude that:

"The investigation shows very clearly that it has been well worth while to reject the terms 'carelessness,' 'accident,' or 'poor material' as adequate explanations of the cause of the majority of breakages. Inasmuch as by the removal of many underlying causes, a reduction in breakages amounting, in the case of some articles, to over 75 per cent. has been effected in the present investigation, there can be no doubt that it will be equally possible to reduce the colossal waste in other branches of industry if full consideration be given to the psychological factors involved."

The discovery of the "underlying causes" which were successfully eliminated, by throwing light on the psychology of the industry, also throws light on the possible precautions to be taken in the selection of workers.

We are now in a position to see how vocational guidance and placing is carried out by the best specialists. Modern agencies for this purpose may be roughly divided into three types. The first aims at broadcasting among children, teachers, and others the characteristics of common occupations; the second compiles detailed information as to the child's abilities, mental and physical make-up, and educational and social qualifications, and uses it, together with statistics and details concerning various trades, for giving advice; under the third, a more exact sorting out is attempted, and a full series of tests devised for a limited number of occupations.

In England, as already mentioned, the first, and, to some extent, the second type are included in choice

of employment schemes, while great attention is paid to social and educational matters. Particulars of various trades have been issued by several Care Committees, and these have proved of great value. Various methods have also been tried to interest children in vocational matters. But what little has been done towards evolving definite tests has been left to private firms and agencies.

The best-known organisation of the information type is perhaps the Bureau of Vocational Guidance at Harvard University. The bureau gives advice to, and consults with, teachers, school officials, and employers on vocational matters, and conducts courses in vocational education and guidance in some public schools,* at the University itself, and in summer schools. It also issues material for the education of foremen and works managers, and is about to issue trade information in a form suitable for children. In England, also, attempts have been made to interest works officials, and in various towns there have been meetings of foremen to discuss the entry of children into employment. The Bureau of Vocational Information in New York City, and the Consumers' League of Eastern Pennsylvania, and some English Care Committees have collected and issued a mass of information relating to the employment of women, and the opportunities for advancement, conditions of labour, etc., in various trades.

There is, however, a real danger that mere interest will not coincide with capacity. An attempt is made to remove this in the second type of organisation, which may be typified in the cases of Brussels and Barcelona,

* A " public school " in America is equivalent to an English public elementary school.

already referred to. The Institut D'Orientacio Professionel in the latter city takes great care to investigate each applicant for advice in a thorough and scientific manner, although it does not concern itself with placing. In both of them there is co-operation with placing agencies, many of which will not accept applicants who have not been previously to the Vocational Guidance Bureau. A child who seeks help in Barcelona is passed through two departments. In the medico-anthropometric department measurements are taken of the head, chest, height, weight, lung capacity, and visual and auditory faculties, together with details of his own and his family's medical history. The second, or psychometric department, applies tests to gauge intelligence, judgment, emotional and muscular reaction, attention, and so on. The child is also questioned on his ideals, ambitions, social conditions, etc. Children are sent to the institute by their teachers, and are given advice based on their records in the examination. Further departments exist for the utilisation of the results obtained in fixing standards of attainments required for various trades, and for collecting general trade information. Close attention is also paid to the after-lives of those who pass through the institute, in order that the success of its methods may be judged.

Any series of tests improves as the following-up of cases reveals its defects, but at the best it is not easy to interpret the exact significance of the tests, especially if much reliance is placed on "general intelligence." A third type of institute has tried to find a less fallible method. The Psycho-technical Institut at Charlottenburg has evolved a careful system for selecting suitable candidates for the engineering industry, though, in

common with most German systems, technical ability is overstressed at the expense of emotional qualities. Dr. Mills, writing of the International Conference on Vocational Guidance, held at Barcelona in 1922, says of this institute:

" The fullest use is made there of particulars such as school records, medical examination, etc., these being supplemented by an inquiry into the candidate's interests and leisure occupations. Every endeavour is made to secure his co-operation in the work of determining his suitability for his future career.

" Group tests which are modifications of well-known ' intelligence ' tests, memory for form, number, etc., are supplemented by tests which indicate technical ability. The pupil is shown, for instance, a drawing of a simple train of gear wheels or an arrangement of levers, and his ability to forecast what will happen on moving one of the levers is determined. He is shown a drawing of a section of one of the parts, has to pick out the particular part, and to state in what direction the section has been made, etc. If such tests as these are graded in order of difficulty, a pupil's ability in this direction can be determined by the number of tests which he solves successfully. His mechanical ability is tested by means of specially designed apparatus which have been standardised and patented. The sensitiveness of touch, for instance, is gauged by his ability to judge when two flat surfaces are level. Delicacy of movement is measured by the pupil's ability to gauge the extent to which he has turned a fine micrometer screw, or for coarser work he adjusts a part of a slide-rest to various positions. His steadiness of hand is also measured by his ability to pass a thin rod through holes without touching the sides. As smaller and smaller holes are tried the task becomes more difficult. He has also to pass the rod along curved slots without touching the sides.

" Good eyesight is important, and the usual tests are

given, and the candidate has, in addition, to prove his ability to bisect lines and figures accurately. The ease with which he can estimate a right angle or reproduce a given angle is also determined.

"When to this are added tests for estimating ability to regulate the force and direction of blows with a hammer, tests with the dynamometer and ergograph, tests of attention and reaction times, it will be seen that considerable information as to a candidate's abilities is obtainable from which a very useful forecast his suitability for engineering work can be prepared.

"The work does not end here, however. The candidate's future career is followed most closely, and any discrepancies between the results of the laboratory and his accomplishments in the school and workshop are most minutely examined, the information being used to correct future placings or being made a subject of further research.

"It was stated that this procedure has the full sympathy and support of the Berlin Trade Unions. They realise that it is to their advantage to have within their ranks only men who are capable. The Union suffers as badly from misfits as the employer. A contribution towards the support of the institute is voted annually by the Union, and the satisfactory passing of these tests has been made a condition of apprenticeship."

Up to the present, however, only a few processes have had reliable tests evolved, and many of those which have been used require refining or modifying. Appendix II. gives the best results which are available. Many satisfactory tests have been constructed for private concerns, and are treated as trade secrets; of these it is, of course, impossible to give details. The results given in Appendix II. may be applied with caution but care should be exercised to confirm their reliability under the particular circumstances in which it is proposed to use them.

§ 10. Research.

Research into vocational problems is rarely carried out by organisations devoted solely to them. More often it is allied with the investigation of other industrial questions, and the same institution will undertake work in all branches of industrial psychology. Thus the Institute of Industrial Psychology of London undertakes research into any industrial problem containing a human element, or, in other words, having a psychological interest. Broadly speaking, vocational research may be divided into two branches:

(*a*) Collection of data relating to the conditions of work, future prospects, wages, etc., in various trades and the presentation of this data in a form likely to be useful in vocational guidance.
(*b*) Investigation into the inherent and acquired characteristics desirable for defined occupations, and the evolution of tests for these, together with the intensive study of the characteristics of a number of applicants for employment.

Earlier in this chapter a division of modern guidance methods was attempted, and it is in connection with the first two of these that the first class of research is usually found. The Bureau of Vocational Guidance at Harvard has issued studies of occupations concerned with agriculture, forestry, stock farming, and various mechanical industries. The Orga-Institut of Berlin has embarked on four types of research:

(*a*) Vocational guidance and selection.
(*b*) The better adaptation of factory machinery and office appliances to human needs.
(*c*) Time, motion, and fatigue study.
(*d*) Advertisement study.

A well-equipped laboratory and a large lecture-room, provided with a cinematograph projector, constitute the working space. In addition to research under these four heads, evening courses are given in the same subjects, and visits arranged to the psychological laboratories of the United Berlin Tramcar Company, the German State Railways, General Post Office, etc. Somewhat similar are the National Institute of Industrial Psychology in England, the Psychological Corporation of America, and the Kyoch o-Kai (Japanese Association for the Promotion of Industrial Harmony), all of which aim at the advancement and useful application of psychology. The National Institute of Industrial Psychology defines its work as:

(1) The study of the requirements of various industrial and commercial occupations, and the elaboration and application of suitable tests so as to secure, (*a*) in co-operation with industry and commerce, more efficient and scientific selection of workers, and (*b*) in co-operation with the schools, more reliable guidance for children when choosing their life's work.

(2) The investigation of the best methods for applying human energy in different factories, offices, etc., especially in regard to (*a*) the elimination of unnecessary movements; (*b*) the most advantageous distribution of rest periods; (*c*) the reduction of monotony and increase of interest, etc.

(3) The determination and realisation of the conditions which tend (*a*) to the maximal health, comfort, and well-being of the worker, and (*b*) to the best relations between management and labour—*e.g.*, in regard to lighting, ventilation, methods of payment, labour representation, etc.

(4) The study of the factors influencing the sale of products—*e.g.*, advertisement, designing, etc.

(5) The provision (*a*) of lectures to employers and to

workers, and (*b*) of training courses for managers, foremen, welfare workers, investigators, etc.

(6) The encouragement and co-ordination of research work on industrial psychology and physiology throughout the kingdom, and the publication of the facts established by such research in a form which will indicate their practical value.

Although the greater portion of real research is undertaken by organisations which place their service at the disposal of individual firms in return for a fee, certain firms have branched out for themselves. It is also interesting to note that research institutions have begun recently to undertake work for education authorities. In 1917 the City of Berlin opened "Begabtenschule" for exceptionally intelligent boys from the second highest class of the elementary school, who are given a three years' course to bring them up to Realschule standard, and in six years' time to that of the Gymnasium. It was necessary to introduce some method of examining would-be entrants into the Begabtenschule, which would select those who would benefit by the special instruction. The Orga-Institut was called in, and was able to devise tests which have proved to be very reliable. The same tendency is to be noticed here, where several education authorities have approached the N.I.I.P. with a view to its carrying out a similar selective research, while Professor G. H. Thompson has drawn up tests for selecting children for higher education in the county of Northumberland.

§ 11. Employers.

So far we have considered only the worker. We have now to deal with certain aspects of the employer which are of value in practical vocational guidance.

Many voluntary workers canvass employers for vacancies, but it is usually undesirable that they should do so outside the circle of their acquaintances. When they do canvass, they can at the same time excite the personal interest of an employer in a prospective candidate for work, and, by touching many employers who would be missed by officials, secure places through their personal influence. Teachers, again, frequently canvass for the children who leave their school. Up to a point both of these classes may do much on their own initiative, but both suffer from two limitations—they are not employment experts, although they may have acquired a mass of valuable trade and other information, and they have only a limited vista of possible employers. Both do well to make full use of the greater expert knowledge and wider horizon of the central bureau.

In the past, canvassing has been mainly carried out by officials, and occasionally by professional canvassers and voluntary agencies. The canvasser must not only approach an employer to induce him to employ a particular lad or to use the services of the local bureau, but he must convince him that the bureau provides the most efficient means of procuring juvenile labour. The employer should be interested on business not on philanthropic grounds. He should be approached from his point of view, not from that of the bureau. The two view-points should be the same; often they are not. But, apart from securing places for workers, the canvasser has other duties to perform. He should find out which employers might be prepared to engage defectives, who are usually the most difficult to place. He should secure the data necessary to classify employers in his district according to the care they are likely to take of

young workers, and he should spread the gospel of further education and proper vocational guidance. It is impossible to avoid situations which are unsatisfactory from some point of view, but it is far better, for instance, to place a child as errand boy if no more preferable opening offers, and move him into more suitable work later on, than to allow him to run the streets without proper control. It is impossible to divide employers into watertight compartments of grades of fitness. A man who may offer undesirable employment for the permanent career of one girl may be asked to take another temporarily. On the other hand, it is his first job which most impresses a young worker, and for that reason alone the first placing is all-important. A boy may often acquire a distaste for work in a factory (for which he is best fitted) by having had outdoor experience as an errand boy.

Roughly speaking, employment may be divided as follows:

(1) Absolutely bad.
(2) Bad, but possible for urgent cases.
(3) Rather bad, but suitable as temporary employment, pending more suitable work.
(4) Good.
(5) Good, and offering special scope for exceptional youngsters.

When visiting employers, note should be taken of such matters as wages, hours, prospects of permanent employment, opportunities for learning a trade, moral atmosphere, and so on. It is then possible to divide employers into the following categories:

(1) Firms taking indentured apprentices.
(2) Firms doing skilled work, but unwilling to apprentice.

(3) Situations which may be regarded as more or less permanent.

(4) Situations of a blind-alley character.

Such information having been obtained, it is required in a concise and accessible form. The schedule given below is used by the Boston Vocational Bureau, and although not quite applicable to English conditions, it points to the lines upon which a similar dossier may be compiled.

BOYS.

How are boys secured ?
Their ages ?
Previous schooling ?
Are any continuing this training ? Where ?
The industry
(*a*) Physical conditions
(*b*) What variety of skill required ?
(*c*) Description of processes
(Photos if possible)
(*d*) What special dangers ?
Machinery
Dust
Moisture
Hard labour ?
Strain ?
Monotony ?
Competitive conditions of industry ?
Future of industry ?
What chance for a grammar school boy ?
High school graduate ?
What opportunity for the worker to show what he can do in other departments ?

TESTS.

What kind of boys are desired ?
What questions asked of applicants ?

What tests applied ?
What records kept ?
(Collect all printed questionnaires and records)
Union or non-union ?
Comment of employer ?
Will he take boys sent by Vocation Bureau ?
Will he attend Vocation Bureau conferences if asked ?
Comment of foreman ?
Comment of boys ?
Health Board's comment ?
Census Bureau Reports on this occupation, Massachusetts, 1908.

Number of establishments	Capital invested	Value of stock	Wages paid
Average earning	Males employed	Females	Value of production

School fitting for this occupation ?

It will be found that an employer will generally have a preference for boys or girls from certain schools. He often has some good reason for this, and it is worth some trouble to find out the reasons for his preference, and whether they are real or fancied.

It has already been stated that employers, as a whole, fight shy of vocational bureaux. The following reasons for this have been given to the author by prominent English concerns:

A large Stores (*London*) : " The chief difficulty with the J.A.C. as it exists to-day is, in my experience, that there is considerable delay in getting the right type of applicant. The difficulty of delay I find is much more serious in London (where a child living on one side of

the street may belong to one exchange, while one on the other belongs to the next) than in a provincial town where one exchange covers the whole source of supply."

Large Engineering Works (*Midlands*) : " Generally speaking, we do not use the employment exchanges for engaging juveniles; as a matter of fact, we always have far more applicants for work than we can possibly take."

Large General Stores (*London*) : " We are in touch with the London Labour Exchanges, and are always glad to see promising boys and girls from whatever source they may come, but we find that it is very rarely that well-educated juniors apply there. More to our purpose are the School Appointments Boards with which we are in close touch."

Another Stores : " . . . The employment exchanges have of late proved more useful than before; possibly, if they were efficiently organised, they would prove of real service."

Chemical Factory (*Hull*) : " The exchanges of to-day, like most other human institutions, are capable of a great deal of improvement. If they were thoroughly efficient, they would naturally fulfil a highly useful function."

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CHAPTER IV

CONTINUED EDUCATION AND APPRENTICESHIP

§ 1. The Educational Ladder.

The path by which a child may climb from the elementary school to a good education, possibly here and there to research work, is a complicated one, and the alternative routes are many. Naturally it can only be the few who will reach the end of the road; the majority must be the lowly followers. The vocational worker has to consider first how to select those most likely to benefit by advanced technical or cultural study, and how best to persuade them to start and persevere on the road to possible responsibility and fame; secondly, what broadening education he can give to those who can never advance very far, and, in turn, how these may be encouraged to learn for learning's sake and for the proper understanding of their place in democracy.

In England the Care Committee worker, as a rule, only comes into contact with a part of the educational system—that which is concerned with evening and technical schools. A child who leaves the elementary school at fourteen may, or may not, continue his education beyond. The chances are, unfortunately, that he will not; for, roughly speaking, only a small percentage of the leavers from the elementary schools proceed to another school, while even of these a large

proportion will fail to complete the course. How desirable it is to increase the number, and how the voluntary worker is one of the most likely agents to secure this, has already been pointed out.

§ 2. Vocational and Cultural Training.

Inside the elementary school only a rare attempt is made to give any kind of vocational bias to the work. There is, however, a considerable body of thought, especially among parents, to the effect that the elementary schools should give more than a general education, and should also provide practical trade instruction. The view is a wrong one, for children are not educated to make good workmen alone, but to be citizens in the very full sense that successful democracy demands; and if this is to be achieved, the precious years up to fourteen must not be devoted to vocational training. There is not time for both. Besides, under fourteen there is rarely any definite vocational intention, and preparation for a specific trade is as likely as not to prove wasted. The elementary schools do, in many ways, prepare for the working side of life, since they include in their curriculum physical exercises, manual instruction, and other subjects that foster accurate muscular control, while science and mathematics prepare for the technique which is common to all skilled occupations. In addition, the ordinary school life, both in and out of the classroom, draws out the other desiderata for working life: ability to act quickly, to foresee events, to understand a problem, which, after all, is the preliminary qualification for work in factory or office. Beyond the elementary school age the question of how far a vocational bias is to be

given to studies is more evenly balanced. But before the problem can be settled, young workers must be clearly segregated into two classes :

(1) Those who show promise of advancing to comparatively advanced positions, and
(2) Those who from mental, physical, or environmental conditions must remain ordinary unskilled or semi-skilled workers.

Much of the confusion which exists in the Vocational *v.* Cultural controversy is due to a failure to grasp the fundamental difference between these two classes. While all require as much general education as they can get, only the former require technical instruction, while the general workers, who under modern conditions perform for the most part dull routine operations, need all the more cultural development that they may find some enjoyment and purpose in life.

The future skilled worker must be taught the technique of his trade, but even then he is also to be a citizen, and, at any rate for the first few years of his further education, general subjects should receive most of his attention. To some extent this is done in the evening schools, but there is still considerable scope for the after-care worker in encouraging youngsters not to neglect that side of their education.

The problem of the duller child is more complicated, and while its solution is primarily the concern of the educationist, the social worker cannot afford to ignore it. Young children must do as they are told. Their undeveloped minds cannot yet weigh the reasons for conduct, and whether or not superficial reasons are given them, there must be, of necessity, a background

based on implicit obedience. As the child grows older its reasoning powers will take on a deeper tone, and the time will come when opposition to the discipline imposed by older people will assume a real significance. During the years of adolescence this self-assertion increases rapidly, and any attempt at complete suppression of it will have one of two results. Either it will fail, and the child, breaking away from restraint, will forge its own path irrespective of the experience and advice of older people, or it will succeed, and the child becomes the slave of the man. Neither course follows the normal trend of evolution, for in the one case mental anarchy results, in the other cessation of initiative. Thus we are forced to the conclusion that if the normal evolution of the species is to continue, after a certain age youth must, at least to a considerable extent, forge its own destiny.

Schools for children over fourteen have such material to deal with, and it is our duty to find out what are the aspirations of the young people under their care. Having done this, the school curriculum must be so shaped as not to clash with the outlook of its pupils. This may seem on the surface to be creating an impossible position, and naturally the difficulties will be great. There are, however, certain definite objectives to be gained by means of education, and with the adolescent these can only be gained by playing on his natural enthusiasms. He is the possessor of inexhaustible keenness and energy.

The writer a few years ago questioned the top classes of some East London elementary schools as to whether they would like to remain at a part-time school, and, if so, what they would like to do there. The answers

may be of interest in showing what the continuation school teacher is up against. Very few wished to learn any more history or literature; still fewer saw the use of geography; while mathematics, shorthand, and book-keeping were much in favour. A number were not only willing but anxious to have further opportunities for studying them. The only ones to show any desire to follow up English or historical subjects were the girls, while a fair number of both sexes, as was to be expected, were desirous of doing higher work in music and drawing. *About 70 per cent. had no further use for schools at all.* Such an attitude is fairly typical of industrial areas, and these are the people whom the continuation schools must lead—not drive—along the road to citizenship.

Along with that of the young people, the point of view of the parent is equally important, for the one reacts upon the other. There can be little doubt that the majority of artisan parents now realise the vital advantages that their sons and daughters would derive from a good trade training on the German system. But whether they appreciate the blessings of a longer liberal education is more doubtful. There are, of course, artisans in every industrial district who take a keen interest in cultural education, and who wish their children to have as much as possible of it.

It is held in many quarters that this interest can only be created by giving the work a vocational bias. The argument put forward by this school is that it is far easier to stimulate interest in study which, for obvious reasons, will add to the weight of the weekly pay envelope, than in an abstract pursuit which, to the young at any rate, shows no signs of bringing material

advantages in its wake. The argument is probably only to hide a selfish object under the guise of a higher motive. Certainly it is true that adolescent children can be readily interested in subjects which are given a vocational flavour, but it is equally true that their attention can be won without it. The difficulty is at the start, when interest has first to be found, but in the hands of the right type of teacher there should be no impassable obstacle to creating it in work unconnected with the student's occupation.

These young persons are at an emotional age, and naturally lean towards emotional and romantic thought, and the supposed bias on the vocational side is merely a product of environment during recent years, not the result of any evolutionary process, and is therefore not a vital factor. But as things stand the vocational bias is probably necessary.

Once the school appeals to the pupils' interest, it is a short step, in capable hands, to reach the pupils' hearts; and, to quote Dr. Kerschensteiner: "once it has gained the pupil's heart it can lead him where it will, on to theoretical as well as practical ground, on to the ground of moral and civil teaching." Not until it has grasped this fact will the compulsory continuation school prove itself valuable enough to justify the large expenditure which it requires.

During the growth of the factory system specialisation of work has become more and more marked. The old-time craftsman who in his day was a master of his trade, skilled in a large variety of operations, has given place to automatic machinery, and the consequent division of labour. It was then a work of five or six years to train the lad to become a capable workman,

who, given a box of tools and the raw material, could do a complicated job at the ends of the earth. Thus the system of apprentice training, extending over a number of years, was evolved. Whether or not Ruskin was right in his efforts to perpetuate this type is beside the point. The craftsman, in the accepted sense of the word, has to a great extent vanished from our ken, and given place to the man who spends his whole time, year in, year out, in performing some small mechanical process.

The war, more than anything else, has shown that very little training is required for the majority of present-day jobs, and such little as is necessary should be obtainable without interfering with general education.

§ 3. Curriculum.

The Care Committee worker should ascertain what general subjects have any considerable value in further education, be it at evening, technical, or day continuation schools. Drawing and mathematics have a strong claim to a place in the curriculum. Both are subjects which the primary school has left just when they are becoming interesting, and both help us to understand the world we live in. Mathematics, if properly dealt with, allows the student to see the laws governing his earning capacity besides its usefulness in his own personal affairs, and often in his work. If there is to be any hope of industrial peace these laws must be understood by the workers of the future. Mr. Ogden, speaking of the Munich Continuation Schools, says:

" By making out both preliminary estimates and bills, the pupil learns the value not only of the material and

the work but of the time he has spent on it. It is particularly important for the apprentice to recognise by these bills how much time he has spent on his work —and this, of course, is very great with apprentices, and increases the cost of production. Special care is taken in making out bills and estimates to let the pupil learn to calculate not only the cost of materials and time, but the other items of cost arising from deterioration of machines and tools, the interest on capital, carriage, and the various other sources of expense."

By being able to calculate this, the worker is able to satisfy himself that he is receiving fair payment for his toil. To follow the theme: it is only through a knowledge of political economy that he can understand the larger issues that determine his value in the economic system. The school cannot expect to give its pupils a thorough insight into these problems, but it can, and must, cover the more elementary part, and prepare the way for deeper work at a later age. Thus we have two subjects which are essential for the continuation school.

Granted a place for mathematics in the curriculum, its scope becomes a matter of importance. It would seem much better not to attempt excursions into the higher realms. If the child is going to climb to a position where he will require a knowledge of higher work, the continuation school is not the place for him to learn it. Rather should this type of school, for the sake of the large majority, concentrate on the more elementary matter applied to interesting and broadening purposes.

Just as a knowledge of the world he lives in from an economic standpoint is essential to the worker, an insight into the evolution of the industrial system is of equal importance. The vital need for an understanding

of these two factors is too patent to need enforcing. One has only to look at the industrial controversies of recent years to realise how many of them have been due to a lack of insight into the meaning of the factors concerned, and of the institutions which form the factory system. This insight can only be obtained in one way—through a study of the historical factors which have caused their rise. Very few workers have this knowledge, and many of those who think they have only know the biased views of perhaps a single writer. The urgency of this is being slowly realised in all civilised countries. In England most of those who act in the educational interests of the workers have realised it, and are already doing their utmost to spread a knowledge of industrial history. Both the W.E.A. and the Labour Party have made it an important plank in their educational platforms, while a few local authorities have appointed peripatetic lecturers in this subject. That there is a demand for this kind of instruction among adult workers is shown by the response which these efforts have everywhere met with.

Interest in industrial history and political economy is now being taken by the employers, who have often been as badly informed as the men. Many of the more go-ahead firms in England are making the preliminaries of these two subjects a big feature in their works schools, while in America the employers who are grouped under the National Association of Corporation Schools are, among others, realising that the time to enlighten the worker has arrived. These firms are realising, as in time all must, that here lies a large part of the solution of the present industrial unrest.

That geography should be taught with a view to

building up a background of a special nature, and to inducing a tolerant and fair view of other peoples, is self-evident. The reason why it is not receiving its proper share of attention is that many consider history alone to cover this field, and consequently do not feel justified in giving time to the other subject. In ideal practice, of course, the two should be made to form one subject. Attempts have been made to teach civics to young persons as a definite subject—a sort of social geometry. It is an impossible plan. The only workable way of planting civic ideas in children is through the subjects we have discussed, and by the general social activities of the school, the clubs, and the efforts of the welfare worker. The Munich system, in spite of its faults, throws light on this:

"Civic instruction is generally planned as follows in the different trade schools. First, the historical development of the trade to which the pupil belongs is discussed. He is shown in the struggles of his fellow-workers the growing interdependence of interest between all the citizens of a community. Concrete examples are placed before him. Thus, by degrees, he recognises how the problems arose which occupy the town and the nation to-day, and learns the duties and rights of the individual within the State. This insight is strengthened into the will to consider others, and to devote himself to common purposes, by associating pupils into working groups, especially in the last school year."

Chemistry and physics are of clear importance to the child who is embarking on a course of technical instruction. For the average youth their value is more open to doubt, and it is a point worth consideration whether botany and biology are not more useful in

helping towards an understanding of life and its problems. The value of English literature is, perhaps, too evident to need insistence here.

§ 4. Central Schools and Junior Technical Schools.

An occupational bias is to be found in both these types of school. Their aim is to cater for those who miss a secondary school education, but can go beyond the standard of the ordinary primary school; they provide a full-time general education of a type that will prepare their pupils for industrial or commercial life, and—which is important—have the extra attraction of a vocational interest.

With the growth of elementary education there arose a need for more advanced schools into which the better scholars could be drafted. Higher Elementary Schools were introduced, but they foundered on legal difficulties, and to obviate these the London County Council in 1910 founded a new type of school known as Central Schools. These have since been extended to many large towns, and to some rural areas. Admission is, as a rule, confined to children in their eleventh year, who have reached Standard V. or its equivalent, and parents are often required to undertake to keep their children in attendance up to the end of the school year in which they become fifteen. No penalty is attached to failure to honour the undertaking, but teachers rightly make every effort to secure attendance to the end of the course, and in this it should be possible for them to obtain considerable help from local Care Committees. The subjects taken depend on the particular school and the vocational bias which it adopts. In

commercial schools, modern languages, book-keeping, shorthand, typewriting, and commercial correspondence form part of the curriculum; while engineering schools stress mathematics, science, and workshop and laboratory training. On the general side are to be found, among other subjects, English, History, Geography, Scripture, Physical Training, Drawing, Music, and Composition.

The Junior Technical School takes boys at thirteen or fourteen for a two or three years' course, and aims at giving a combined practical and general training, often in connection with a particular industry, which is represented on an advisory committee, and with a staff containing a proportion of men or women who have been engaged in that trade. Fees are usually charged, but are reasonably low, and many students are assisted by scholarships, maintenance grants, and other forms of financial aid. Charges are frequently made for material used in practical exercises. In many of the larger Art Schools, notably in Birmingham and Leicester, special day classes are provided for training in the artistic side of a variety of trades, while in most Art Schools "arts and crafts" make up a considerable part of the curriculum. It is a common practice for Education Authorities to provide a large number of entrance scholarships and maintenance grants. It cannot be too strongly urged that Care Committee helpers should make themselves familiar with the courses provided at schools of this type in their locality, and the curricula issued by the local authority should be studied.

The Junior *Day* Technical School takes boys, generally of fourteen years of age, who intend at sixteen

to enter a skilled trade as apprentices. Its objects are to complete the general education of the elementary schools, and to give a sound preparatory training which will be of use on entering the works; to teach the practical drawing, mensuration, and calculation needed in the workshop, the use of the various tools used in the working of wood and metal, together with the elementary principles of Mechanics, Physics, and Chemistry. Where these schools exist, it is usual for local employers to give preference to successful students. In the Openshaw Junior Technical School the syllabus is briefly as follows:

Practical Mathematics, including Arithmetic, Mensuration, Algebra, and Trigonometry.
Practical Drawing of Engineering and Building details. (The course includes Constructive and Solid Geometry as well as Hand-sketching.)
Workshop Practice in both Wood and Metal.
Elementary Science. (The course includes practical work in Physics, Mechanics, and Chemistry.)
English, including Reading, Composition, Geography, and History.
Physical Exercises.

Schools of Arts and Crafts have been established in many towns, and are in many ways similar to the Junior Technical School, although it is not usual to include general subjects. They are, also, primarily intended for the benefit of those industries which depend on design and draughtsmanship, and practical art in design and execution form the basis of their work. In some cases, such as the Central School of Arts and Crafts, London, one trade alone—in this case Printing and Bookbinding—constitutes the entire practical

aim of the school. As a rule, three types of course are provided:

Full-time instruction for professional examinations, etc.
Part-time day courses for apprentices.
Evening courses for apprentices and others.

Provision is made in all of these for students who enter not with a vocational motive, but for interest or cultural purposes.

In the Central School of Arts and Crafts, Birmingham, the principal courses, which extend from September to June, are these:

Architects. (Day school to prepare in three years for the Intermediate R.I.B.A. examination, and evening school giving three-year courses suitable for Builders, Surveyors, Clerks of Works, Shop Fitters, and other occupations connected with building.)

Gold and Silversmiths, etc. (Full-time day course for the training of Craftsmen, and those who will fill responsible positions. Part-time day course for those already engaged in the trade. Evening courses for senior workers, apprentices, journeymen, and others.)

Modelling and Letter Cutting. (Day and evening classes in Modelling, Stone Carving, Carving from Life, Modelling for Lead Work and Stucco, and Designing.)

Ornamental Writing, Lettering, and Illuminating.

Embroidery.

Dressmaking and Dress Design.

Stained Glass Work.

Printing Trade Class. (Full-time classes for apprentices extending over two years, and starting at fourteen. Part-time day courses for apprentices. Evening classes for Compositors in Printing Theory, Lithographic Artists, Letterpress Machine Printers, Monotype Compositors, Linotype Compositors, Bookbinders.)

Painting and Decorators' Classes. (Full-time course

in which half the time is given to general subjects, and half to drawing and practical work. Part-time day course for apprentices and others. Evening classes in Practical Work and Drawing.)

From a purely vocational point of view, apart from its cultural significance, art studies are of great value: most objects of everyday use would be improved by being of an artistic shape and finish, and would then have an appreciable effect on the contentedness of the average user. At the same time, a knowledge of colour and design is invaluable in a large number of trades. Thus, the City of Birmingham School of Arts and Crafts publishes the following list of trades in which applied art is desirable:

Advertising Expert.
Auctioneer and Valuer.
Architect.
Brassworker.
Bookbinder.
Book Illustrator.
Bookseller.
Blacksmith.
Bricklayer.
Builder.
Cabinet Maker.
Cane Furniture Maker.
Cardboard Box Maker.
Carpenter.
Caster.
Catalogue Illustrator.
Chaser.
Confectioner.
Commercial Traveller.
Coach Builder.
Compositor.
Die Sinker.
Draughtsman.
Dyer and Cleaner.
Designer.
Dressmaker.
Engraver.
Enameller.
Embroidress.
Etcher.
Fashion Designer.
Florist.
Fitter.
Gardener.
Goldsmith.
Gun Engraver.
Glazier.
Glass Embosser and Engraver.
House Furnisher.
Illuminating Artist.
Joiner.
Jeweller.
Japanner.

Leather Worker.
Lithographic Artist.
Lithographic Printer.
Letter Cutter.
Medallist.
Milliner.
Motor Body Builder.
Monumental Mason.
Moulder.
Mounter.
Modeller.
Name Plate Engraver.
Printer (Typographical).
Painter and Decorator.
Paper Hanger.
Pattern Maker.
Photographer.
Photo Retoucher.
Photo Mounter.
Potter and China Maker.
Picture Framer.
Process Worker.
Plasterer.
Raiser.
Repoussé Worker.
Rubber Stamp Maker.
Salesman.
Sheet Metal Worker.
Shop Assistant.
Shop Fitter.
Silversmith.
Surveyor.
Stained Glass Artist.
Stencil Cutter.
Sign Writer.
Spinner.
Stamper and Piercer.
Stone Carver.
Teacher.
Toolmaker.
Tailor.
Ticket Writer.
Tinsmith.
Tracer.
Toy Maker.
Upholsterer.
Wall Paper Stainer.
Wood Turner.
Wood Carver and Gilder.

The idea of the day trade school has been developed further in Germany and in the United States than in this country, and at Munich trade courses, combined with general subjects, are provided for the following trades:

Fine Mechanics, Tool Makers, Gunsmiths, Coachmen, Drivers, Bakers, Butchers, Cooks, Waiters, Stokers, Chimney-sweeps, Shoemakers, Printers, Gardeners, and Hairdressers.

Boys who complete a Junior Technical Course, and others who have a higher general education such as is

given by a secondary school, may attend Intermediate Technical Courses at the Technical Schools. In England these courses are confined chiefly to engineering subjects and some branches of applied chemistry, and serve as a training for those who are to become responsible assistants and managers in works. Both day and evening courses are usually provided in the larger centres. Still more advanced work is catered for by the Universities and Technical Colleges.

§ 5. Evening Schools.

Up to the introduction of the "course" system, evening continuation schools did little more than provide instruction in odd subjects, and as an addition to general education they failed. With the introduction of this system, by which younger and less advanced pupils are required to take a group of related subjects instead of isolated courses, a great improvement has taken place. It has not only given a broader knowledge, but has largely cured the habit of dropping away before the end of a course. The nature of the course depends on the students' intended vocations, and may be technical, commercial, or domestic. It is usual to admit students who have reached at least Standard VI. of the elementary schools. Although the majority of students fail to take advantage of it, it is intended that evening continuation schools (to give them their full title) should be a stepping-stone to technical and other schools.

A very considerable variety of instruction is provided at many of these schools, the extent of this variety depending mainly on the size of the town. Speaking

generally, there are three types of course in evening schools in towns:

(1) *Commercial Courses.*—For boys and girls engaged in, or hoping to be engaged in, commercial occupations.
(2) *Industrial Courses.*—For boys intending to enter technical classes in the local Technical College, and for boys who are not in commercial occupations.
(3) *Domestic Courses.*—For girls not requiring instruction in commercial subjects.

Thus, in Birmingham the principal courses are:

(*a*) *Technical Course.*—English, Practical Mathematics, Practical Drawing, Elementary Science, Woodwork, Metalwork, Machine Construction and Drawing.
(*b*) *Preparatory Technical Course.*—English, Calculations, Mathematics, Experimental Science, Mechanical Drawing, Metalwork, and Woodwork.
(*c*) *Commercial Course.*—English, Arithmetic, Shorthand, Book-keeping, Commercial Geography, Commercial Correspondence and Business Methods, French.
(*d*) *Domestic Course.*—English, Household Accounts, Home Dressmaking and Needlework, Dresscutting, Cookery, Needlework, Housewifery and Hygiene, Ambulance Work and Sick Nursing, Laundry Work, Millinery, Laws of Health, Singing, Physical Exercises.
(*e*) *Art Course.*—Drawing from Nature, Drawing from Animal Life, Painting, Design, Drawing in Light and Shade, Freehand Drawing, Model Drawing, Embroidery, together with subjects of general education such as English, Arithmetic, Physical Exercises, Singing, Geography and History, Laws of Health.
(*f*) *Literary Course.*—English Composition, English Literature, Foreign Languages, Civics, History.
(*g*) *Preparatory Course.*—English, comprising Reading, Writing and Composition, Arithmetic, History and Geography.
(*h*) *Scouts' Course.*—English, Ambulance Work, Sick Nursing, Practical Science, Physical Exercises, Wood-

work, Metalwork, Singing, Cookery, Pathfinding and Surveying, Nature Study, Signalling.

(*i*) *Special Classes.*—In addition to the subjects included in the above-mentioned courses, classes in such subjects as Ambulance and Sick Nursing, Horticulture, Singing, Physical Exercises, Swedish Drill, Morris Dancing, etc., are held, if sufficient students apply.

At some centres facilities are provided for suitable Art Instruction to be given in connection with various practical or scientific subjects; as, for example, Embroidery and Design in connection with Needlework or Dressmaking; Modelling and Design in connection with Woodwork or Metalwork; Drawing in connection with Nature Study, etc.

In a smaller town, such as Nuneaton, the syllabus of courses given at various centres consists of:

Junior Commercial Course for Boys and Girls.

Year.	*Subject.*	*Hours per Week.*
1st	Arithmetic and Accounts	2
	Shorthand or Civics	2
	English	2
2nd	Arithmetic and Accounts	2
	Shorthand or Civics	2
	English	2
3rd	English	2
	Shorthand	2
	Book-keeping	2

(French may be included in the above course if so desired.)

Junior Mining Course (Two Years) for Boys.

Subject.	*Hours per Week.*
Practical Mathematics and Drawing	2
Mining Science	1
English	1

JUNIOR ENGINEERING COURSE (TWO YEARS) FOR BOYS.

Subject.	*Hours per Week.*
Practical Mathematics and Drawing	2
Engineering Science	1
English	1

The Centre is a preparatory department for the Mining and Technical School. Students should attend one of the Junior Courses outlined above, and subsequently proceed to the Senior Technical Courses in Mining, Mechanical Engineering, and Electrical Engineering, which are held in the Mining and Technical School.

HANDICRAFT GENERAL COURSE (TWO YEARS) FOR BOYS.

Year.	*Subject.*	*Hours per Week.*
1st	English	1
	Woodwork	2
	Practical Mathematics and Drawing ..	2
	Practical Science	1
2nd	English	1
	Wood and Metal Work	2
	Practical Mathematics and Drawing ..	2
	Practical Science	1

Building Trade students who attend the above classes should subsequently proceed to the Advanced Classes in Building Subjects held at this Centre.

GENERAL COURSE (INCLUDING MINING SUBJECTS) FOR BOYS.

Year.	*Subject.*	*Hours per Week.*
1st	Woodwork (including Drawing)	2
	Physical Exercises	1
	English	1
	Practical Arithmetic	1
	Elemetnary Science	1
2nd	Woodwork (including Drawing)	2
	Physical Exercises	1
	English	1
	Practical Mathematics	1
	Mining Science	1
3rd	Woodwork (including Drawing)	2
	Physical Exercises	1
	English (with Civics)	1
	Practical Mathematics	1
	Mining Science	1

General Course for Girls.

Year.	*Subject.*	*Hours per Week.*
1st	English	1
	Physical Exercises with Vocal Music ..	1
	Needlework	2
2nd	English	1
	Physical Exercises with Vocal Music ..	1
	Needlework and Dressmaking	2

Junior Art Course for Girls.

Subject.	*Hours per Week.*
Drawing (*i.e.*, Nature and Object Drawing, Lettering, Elementary Design, etc., and, if possible, Craft-work)	2
English	1
Physical Exercises and Music	1

In addition special classes are held at specified centres in Lip-reading, First Aid and Sick Nursing, Physical Exercises, and Gardening.

Possibly the best way of showing how evening school courses may be pursued over a considerable number of years is to quote from a syllabus issued by the Manchester Education Committee on pp. 110-111.

§ 6. Works' Continuation Schools.

Works' schools have come to the fore recently, but the idea is by no means new. For many years a number of industrial and commercial firms have had their own continuation schools, and despite the difficulties of pioneer work, have generally evolved very good and efficient institutions. These schools have, in most cases, been started by the better type of employer for

the purpose of raising the general intelligence of his workers, and at the same time giving them some instruction useful to them in their work. The fear has been expressed in Labour circles that it is dangerous to allow employers to assume educational responsibility. A Labour Party memorandum represents a common but erroneous opinion among working men, when it says:

"Employers have enough power as it is. The proposal to make them into a kind of private education authority and to trust the minds of working-class children to their keeping is thoroughly mischievous. But, once established, the system will not be easy to eradicate."

It is true that under the factory system in its older form such might well be the case, but under the new conditions, which are changing the system everywhere, this danger is not likely to be serious. The efficient modern employer now realises, quite apart from humanitarian motives, that his employees' interests are collateral with his own, and that education must be given a front place among these interests. If he wishes to produce at a price which will allow him to compete in the world's markets, he must not only train his workers, but he must educate them in the widest sense of the word. The worker must be more than a worker if he is to reach his maximum efficiency. By the side of the works school, the employment manager, the welfare supervisor, the doctor, and the psychologist are also finding a place in industry, and together are becoming responsible for the whole human side of a business. A new era of industrial conditions is dawning, and these specialist social workers will have their place as much

TECHNICAL EVENING SCHOOLS

Diagram Showing Courses of Instruction, Extending over Six Years, for Technical Students in the Manchester Evening Schools.

Advanced Instruction in Science and Technology in the Municipal College of Technology.

Fifth and Sixth Year Technical Courses.

Mechanical Engineering Course. (*Section A.*)	*Building Course.*	*Chemical Course.*	*Electrical Course.*
Hrs.	*Hrs.*	*Hrs.*	*Hrs.*
Mac. Drawing .. 2	Building Construction .. 2	Chemistry .. 2	Magnetism and Electricity .. 2
Heat Engines .. 2	Builders' Science 2	Mathematics .. 2	Mathematics .. 2
Practical Maths... 2	Mathematics .. 2	Physical Chemistry 2	Applied Mechanics 2
(*Section B.*)			
Machine Work and Fitting.. .. 2			
Sketching and Drawing .. 2	—	—	—
Calculations .. 2	6	6	6

Fourth Year Technical Courses.

Mechanical Engineering Course. (*Section A.*)	*Building Course.*	*Chemical Course.*	*Electrical Course.*
Hrs.	*Hrs.*	*Hrs.*	*Hrs.*
Mac. Drawing .. 2	Building Construction .. 2	Chemistry .. 2	Magnetism and Electricity .. 2
Heat Engines .. 2	Applied Mechanics .. 2	Physics .. 2	Machine Drawing 2
Practical Maths... 2	Mathematics .. 2	Mathematics .. 2	Mathematics .. 2
(*Section B.*)			
Machine Work and Fitting .. 2			
Sketching and Drawing .. 2	—	—	—
Calculations .. 2	6	6	6

Third Year Technical Courses.

Practical Mathematics and Practical Drawing	3 hours weekly.
Practical Mechanics and Physics	2 „ „
English	1 hour weekly.
Second Year Technical Course.	6 hours weekly.

Practical Mathematics and Practical Drawing	3 hours weekly.
*Woodwork or Mechanics and Physics	2 „ „
English	1 hour weekly.
First Year Technical Course.	6 hours weekly.

* Woodwork and Mechanics and Physics optional; where neither Woodwork nor Mechanics and Physics is taken, the whole six hours are devoted to Mathematics, Practical Drawing,

COMMERCIAL EVENING SCHOOLS

Diagram Illustrating the Scheme of Commercial Education, Extending over Six Years, in the Evening Schools Conducted by the Education Committee.

Fifth and Sixth Year Courses are also held in the Municipal Evening School of Commerce and, where necessary, in the Commercial Schools. Subjects:

English.	Book-keeping.	Higher Arithmetic.
Shorthand.	Commerce.	Languages, etc.

The work of the Municipal Evening School of Commerce and the Commercial Schools is arranged to lead to the Diploma, Professional, and Lecture Courses held in the Municipal High School of Commerce.

Fifth and Sixth Year Commercial Courses.

Shorthand Clerks and Typists.	*Junior and Invoice Clerks.*	*Book-keepers.*	*Correspondents and Shippers' Clerks.*
Hrs.	*Hrs.*	*Hrs.*	*Hrs.*
English and Commercial Practice and Typewriting 2	Coml. Arithmetic 1	Coml. Arithmetic 1	A Modern Language 3
Shorthand .. 3	Book-keeping .. 2	Book-keeping .. 3	English and Commercial Correspondence and Business Economics 1
Arithmetic .. 1	Shorthand .. 2	English and Commercial Correspondence and Business Economics 2	Coml. Geography 1
	English and Commercial Correspondence and Business Economics 1		*Book-keeping or Shorthand .. 1

Fourth Year Commercial Courses.

Shorthand Clerks and Typists.	*Junior and Invoice Clerks.*	*Book-keepers.*	*Correspondents and Shippers' Clerks.*
Hrs.	*Hrs.*	*Hrs.*	*Hrs.*
English and Commercial Practice and Typewriting 2	Coml. Arithmetic 1	Coml. Arithmetic 1	A Modern Language 3
Shorthand .. 3	Book-keeping .. 2	Book-keeping .. 3	English and Commercial Correspondence and Business Economics 1
Arithmetic .. 1	Shorthand .. 2	English and Commercial Correspondence and Business Economics 2	Coml. Geography 1
	English and Commercial Correspondence and Business Economics 1		*Book-keeping or Shorthand .. 1

Third Year Commercial Courses.

Commercial Arithmetic	2 hours weekly.
English and Commercial Practice	2 ,, ,,
Book-keeping or Shorthand	2 ,, ,,

Second Year Course for all Classes of Commercial Students.

Commercial Arithmetic	2 hours weekly.
English and Commercial Practice	2 ,, ,,
Book-keeping or Shorthand or Geography	2 ,, ,,

First Year Course for all Classes of Commercial Students.

TAKEN IN THE MUNICIPAL EVENING SCHOOL OF COMMERCE AND THE COMMERCIAL SCHOOLS.

TAKEN IN EVENING CONTINUATION SCHOOLS.

* In the Correspondents and Shippers' Courses Book-keeping and Shorthand are optional subjects.

as the engineer, or the research scientist, or the efficiency engineer. Outside scholastic work, outside games and physical training, the works school has a wide field of activity in making itself the nucleus round which all sorts of social activities gather. Just as much as the public school, it should rely on school societies to accomplish its end.

Some examples of the educational system evolved by various firms may be of interest:

W. and R. Jacob and Co., Ltd., Biscuit Manufacturers, Dublin : " A meeting of 100 boys was held in January, 1916, to which the advantages of Evening Classes were explained along with the promise of a prize list open to all who make over 50 per cent. attendance, and who passed the Sessional Examination.

" Classes in co-operation with the Clarendon Evening School were soon opened, and although the Rebellion closed our classes for a month, we were able to support a 70 per cent. attendance, and fifty-three boys passed the examinations and received the 5s. awarded by the firm. 1916–17 saw little change, except for the opening of Physical Drill classes during working hours, but the principle of boys attending classes in English and Arithmetic in the evenings was continued, and the results were equally good.

" The system as at present is a simple one, and the education given is rather of a general than a specialised vocational course. Each boy under sixteen is entitled to attend classes five hours during work hours, per week, in specially fitted rooms adjacent to the factory.

" One hour is given to English, when we endeavour to cultivate a taste for reading, so that they will continue to read in their spare time, and to get them to express their ideas clearly and correctly.

" One hour to Arithmetic in general revision and emphasis on weights and measures, money and measurement, with also some Algebra.

" One hour to Physical Drill, based on the Swedish system, with a liberal supply of games, including Basket-ball. During the summer Swimming is also taught.

" Two hours' Manual Woodwork, where the aim is not technical but educational, not the knowledge of a craft, not the acquiring of manual skill, but intellectual and moral training.

" The Course is a two-year course, and we have classes each day from 9 a.m. to 12 noon, and 2.30 to 4.30 p.m., about eighty boys in groups of sixteen attending.

" Classes are also held during the winter months at night for youths over sixteen, over forty-five attending last session.

" All classes during the existence of the school have earned the highest possible grants, and the officials of the Education Office have endeavoured to meet our experiments in a helpful and sympathetic way.

" The boys are genuinely interested and keen. A library has been extensively used, while Basket-ball League games, a Swimming Club, and an Annual Camp are helpful adjuncts to an understanding of aim and effort.

" A number of our apprentices attend the Technical School, and prior to forming our own Manual Woodwork rooms our boys attended the Technical School for this purpose."

Burgess, Ledward and Co., Ltd., Textile Manufacturers, Walkden : " For the last thirty years the fees of all young persons attending Evening or Technical Schools have been paid by the firm. In addition, a number of boys and young men have been trained both at home and abroad for responsible positions in the works, the whole cost of which—fees, travelling expenses, and maintenance—have been defrayed by the firm. This policy has met with considerable success, and some time ago the Governing Director, Mr. G. E. Burgess, decided to further extend this training of the staff and management to the education and industrial

training of the workpeople by instituting a scheme of industrial apprenticeships. A scheme was thought out, which it is intended to put into operation at the earliest possible moment. In the meantime, the Fisher Education Act having passed, it was thought desirable to anticipate the compulsory attendance at continuation schools by establishing a works school for the training of all young people between the ages of fourteen and sixteen years, which should form the first stage in the vocational and technical training of the industrial apprenticeship scheme.

"Accordingly, with a view to the establishment of such a school, they approached the local Education Authority (the Worsley Higher Education Committee), and also the County Authorities, and laid before them a proposal to at once establish a Day Continuation School on the lines required by the new Education Act. It was suggested that use should be made of the fine and admirably equipped Technical School at Walkden, hitherto only used for the purpose of evening classes. The proposal met with the warm approval of the authorities, and a number of conferences were held between them and the firm's representatives, and a scheme was drawn up for submission to the various bodies concerned. It was unanimously passed, and immediate steps were taken to put it into operation.

"The school opened on Monday, May 5. At present there are in attendance eighty-eight girls and thirty-three boys, but this number will shortly be considerably increased.

"The students are divided into four groups—one at school while three are at work—thus making an increase by one-third of the amount of labour employed by the firm. As the firm consider it to be an advantage to have the consecutive periods of instruction as long as possible, the first group attends from Monday morning until Wednesday noon for six hours per day, in two sessions of three hours each—viz., from 9 to 12 and 2 to 5; for the second half of the week No. 2 group

attends; the following week Groups 3 and 4 attend—thus each young person has fifteen hours' instruction per fortnight, and as the instruction extends over twenty-one fortnights during the year, it gives 315 hours' instruction as compared with the minimum required under the Act of 280.

"*Curriculum.*—This has been provisionally adopted as under:

Boys.	*Hours.*	Girls.	*Hours.*
English	4	English	3½
Physical Exercise ..	2	Physical Exercise ..	2½
Mathematics and Drawing ..	3	Arithmetic and Drawing ..	1
Science	2	Hygiene	1
Manual Training ..	2	Needlecraft ..	2½
Tutorial	2	Housecraft	2½
		Music	1
		Tutorial	1
	15		15

"Considerable latitude has been allowed to the teachers, as, for example, under the subject 'English' will be included lessons in Geography, Industrial History and Civics, and an attempt will be made to combine instruction in all these divisions through the trade of the students. Special importance is laid upon the tutorial class, and here the teachers have absolute freedom to use the time in the way in which they think it can be most usefully employed.

"*Attendance and Payment for School Time.*—All boys and girls in the employ of the firm from the ages of fourteen to sixteen years are expected to attend the school, and will be paid full wages by the firm. In the case of day workers, the standard rate of wages for their age and occupation will be paid, and in the case of piece-workers, the average wage earned for age and occupation.

"As the scheme is an experiment on the part of the

firm, they consider it right that the boys and girls and their parents shall be guaranteed against financial loss in the form of wages.

"This arrangement may be varied when the Act becomes compulsory, and an agreement may be arrived at between employers and employed on the question of the remuneration for school time, but this will not apply to those entering the school before the national or compulsory scheme comes into operation, unless it be to their benefit.

"Non-attendance at school will be regarded as non-attendance at work, and will not be paid for."

The Spirella Company of Great Britain, Ltd., Corset Manufacturers, Letchworth: "The educational work and welfare work are linked up closely in one sense, but as different training is required by different classes of workers, we have gradually developed a fairly clear dividing line between education which may be considered recreational, and that which has a direct bearing on the employee's work.

"For the factory employee we have a properly equipped training section where unskilled workers are taught their trade, working the regular factory hours and being paid from the very beginning, this section being part of the factory organisation.

"For the office employee we conduct various classes for the teaching of commercial subjects. These classes are graded according to the needs of employees, commencing with very elementary classes in which we seek to supplement the school education and make up any deficiencies. The curriculum for this class naturally varies a good deal according to the abilities and the previous standard of education attained by the young people enrolled from time to time. We usually, however, find it necessary to include handwriting (with particular attention to the formation of figures), quite simple arithmetic, and a little geography (applied), attention to spelling and grammar being paid in the

course of the lessons on other subjects rather than treated separately at this stage, the idea being to form the foundation on which to build up the more specialised commercial training that is to follow.

" After a certain stage of proficiency has been reached, employees of this grade are consulted as to which branch of office work they wish to specialise in, and where necessary, advice is given, this being based on the candidate's abilities as revealed by her class work and her work in a junior capacity in the office. Employees are then re-graded for the Accounting end of the business or the Correspondence end, the former taking the more advanced Arithmetic and Book-keeping Course, with, of course, special regard to our own Accounting methods, and the more advanced stages touching upon Company Law and general business procedure. On the Correspondence side employees take up typewriting, shorthand, and English, the latter with special regard to letter-writing. The more advanced grades in this class are also given instruction in the technicalities of our own business, this linking up with the advanced instruction in English and letter-writing.

" Classes of higher grade are also held at times, according to the requirements of the business, for Correspondents and Managers, these dealing particularly with business matters affecting the firm and the work of such Correspondents and Managers.

" All classes are held during office hours; instruction is provided by members of this department, assisted by certain members of the staff particularly suited for instructing in certain subjects. We have a well-equipped classroom set apart specially for this work, no charge whatever being made either for instruction, textbooks, materials, etc.

" The foregoing represents briefly what we have attempted to do in our educational or staff training work so far, and it is only fair to add that we have been handicapped by war conditions, these restricting our efforts by entailing lack of space, time, and facilities

generally. We hope, now that we can look forward to better conditions obtaining in a general way, to considerably develop this side of our work, which has already proved useful to the staff itself and to the firm.

"Apart from the foregoing, certain recreational classes are conducted, among them being an Elocution, a Dramatic, and an Embroidery Class; we also have a strong Choral Club, and quite a number of sports clubs. These are, on the whole, conducted by the employees themselves, working through an elected committee, the General Superintendent of the Factory and the Office Manager being *ex-officio* members of such committees. In addition, the firm generously support the evening classes conducted by the local education Authority in this district, having at times paid part fees of those employees attending evening classes, and at other times donated a sum of money for prize-giving or other purposes.

"It might be added that girls and women constitute the majority of our employees, and so far as staff training classes are concerned, these consist solely of girls, though boys and men join in the recreational classes, and one instructor assisting the educational work is a man holding a position in the office."

Messrs. Cadbury Bros., Bournville, Chocolate and Cocoa Manufacturers : "The Educational Scheme which has been evolved at Bournville is, to a large extent, still in the experimental stage. No great originality is claimed, but while many theories have been advanced, especially during the last three or four years, as to the educational provision which *ought* to be made for young employees, Messrs. Cadbury Brothers have for more than a decade been trying to put some of these theories to the test of practical experience.

"This paper is, therefore, simply an account of things which have actually been done, and as a record of a series of experiments it should be regarded.

" For this reason, also, it will be advisable to proceed at once to an account of the Educational Scheme gradually built up by this one firm, instead of entering upon any wide discussion of the principles which underlie industrial training generally.

" The Bournville Educational Scheme has frequently been described in print, but owing to rapid changes, all accounts already issued are now out of date. The scheme has been in existence about twelve years, and has passed through many phases. In its present form it may be summarised under some nine heads.

" In the first—and perhaps the most important—section the firm co-operates with the local Education Authority. In other matters the firm acts independently through the ' Works Education Committee.'

" I. Attendance at Part-time Day School for all employees between fourteen and eighteen years of age (in a few cases the upper age limit is higher). This is dealt with more fully under ' Attendance of Young Employees at Day School.' Attendance at evening classes was formerly a condition of employment, but since the advent of the part-time day school, in 1913, the evening school has taken a subordinate place.

" II. Systematic instruction in Swimming, Swedish Gymnastics, and other forms of physical training at the works for all junior employees.

" III. The training of apprentices in a large number of skilled trades, and also in the Engineering and Analytical professions.

" IV. Vocational classes in certain trades, and also in office work, both for juniors and adults.

" V. Miscellaneous classes in Gardening, Ambulance, and, from time to time, in such other subjects as are required.

" VI. The Summer ' Camp School ' for boys, held during August and September since 1914, and recognised by the Board of Education.

" (Sections II. to VI. constitute what is called ' The Bournville Works School,' conducted by the firm's

Education Committee, acting directly under the Board of Education.)

"VII. An extensive system of rewards, prizes, and small bursaries, based upon work both in classes and in the factory, and closely co-ordinated with questions of advancement and promotion in the works and offices. Return of fees for regular attendance at approved classes.

"VIII. Internal examinations for admission to offices, for positions as apprentices, for appointments as check-weighers, or as deputy forewomen, and for a variety of other purposes.

"IX. The furnishing of educational information, throughout the factory generally, by the Works Education Department.

"Speaking broadly, the scheme is of a twofold character. On the one hand, the firm assists the provision made by the Local Authority for the general education of boys and girls. The position taken up by the firm is that attendance at part-time classes shall be a condition of employment for boys and girls under eighteen years of age. On the other hand, the firm itself provides such specialised technical training as is required by employees for their work in this particular factory, together with systematic physical training for all below eighteen.

"It may be mentioned here that in normal times Messrs. Cadbury Brothers aim at taking on most of their new boys and girls at fourteen years of age, and that they look for at least a seventh standard of attainment. Of those desiring to enter the offices a higher standard is expected."

§ 7. Day Continuation Schools.

As is well known, the Education Act of 1918 made provision for the establishment of part-time compulsory schools for young persons between the ages of fourteen

and eighteen. It became the duty of Local Authorities to establish such schools for all persons between the ages of fourteen and sixteen, and, after the expiration of seven years, to extend the age of compulsory attendance to eighteen. These schools, which were to be run on much the same lines as the preceding examples, were actually opened in London and a few other towns, but owing to false economy and short-sightedness, only one or two examples now survive, and it still remains to be seen how soon the greatest set-back which English education has ever received will be allowed to continue.

§ 8. Apprenticeship.

From early times to a comparatively recent date apprenticeship was the commonest road to industrial education. Employers kept only a few workmen, who, along with their masters, were skilled craftsmen. Craftsmanship was essential in almost every trade, and a long practical training was necessary before a youth became a skilled worker and a member of his craft gild. The training was given either by the employer himself or by some of his journeymen; in either case technical instruction was only a part of the duties of the trainer as commonly conceived; general education, culture, and friendship went along with trade information. The introduction of machinery, with the consequent decline in craftsmanship and the growth of semi-skilled machine production, doomed the old-time apprenticeship. There are still, however, many who have not realised the whole effect of the factory system, and would like to reintroduce formal apprenticeship into all trades. In occupations where

a high degree of skill is required, apprenticeship still survives, although in many cases it has lost its formal nature. There has been a marked tendency in late years to rely on a moral rather than a legal agreement, and often to expect no more than a verbal understanding that, so long as a youth works and behaves himself well, he will be taught a trade, and will be accepted at the end of his training period as a full member of his union. There is much to be said for this system, since an employer is not likely to dismiss a good worker, nor dare he try to exploit young labour for fear of losing his apprentices.

Apprentices, whether under a formal or implied agreement, are usually taken on at fourteen or fifteen, and trained for a maximum period of seven years, which on the Continent and in the United States is tending to reduce itself to four years. The practice of demanding a premium, which until recently gave preference to the well-to-do and not necessarily the best youngsters, is now almost extinct, except in some cases where a high-grade education is expected. An apprentice begins with a very small wage, which is gradually increased by yearly increments. While under the old system there was only one type of apprentice, modern industrial conditions, by separating manual from technical workers, have necessitated a subdivision. Boys who intend to become skilled workers, and these are of the elementary school class, become trade apprentices, while those who will fill technical and administrative positions have, for the most part, come from secondary or technical schools, or the Universities, and start as technical apprentices.

Modern conditions have affected apprenticeship in

another manner. Employers, as represented by big limited liability companies, are completely out of touch with their workers. There can be no personal oversight, such as existed under the system which has gone, with the result that the apprentice is often hustled from one job to another in a seemingly purposeless way. This apparent lack of object in his training is responsible for a corresponding lack of interest and application on the part of the apprentices, and probably has helped to kill the system in industries where it might well be retained. On the other hand, a boy may be left for years on practically the same repetition job, with no chance of learning his trade as a whole. This may be due to deliberate exploitation on the part of an employer who uses apprenticeship as a means of procuring cheap labour, or in larger works it may be due to lack of regulated oversight. A youth is often neglected by his fellow-workers because they are too engaged in earning piece-rate wages, or because they are jealous of disclosing the "tricks of their trade," and he is frequently forgotten by the foreman, who is preoccupied with his routine. Whether this evil exists in any large factory depends on its system of supervision. Many such works employ an apprentice supervisor, whose duty it is to superintend the work of all apprentices, to see that they are passed from shop to shop, effectively taught, and looked after educationally and socially. Where this is well done, the apprentice will learn his trade properly, and a social worker placing a would-be apprentice should carefully enquire whether the supervision is efficient.

Where an apprentice is accepted on a legal indenture, the exact nature of the agreement varies from trade

to trade and from employer to employer, but efforts have been made by Care Committees and other bodies to produce a standard form. The following has been drawn up by the Birmingham Education Committee, and may be regarded as typical:

AGREEMENT.

WE,

of (hereinafter called the Apprentice);

of (hereinafter called the Guardian);

of (hereinafter called the Employer);

do hereby, jointly and severally, agree as follows:

1. The Apprentice of his own free will, and with the consent of the Guardian, undertakes to serve the Employer as Apprentice to the trade of for the term of five (four, three, two) years from the date of this Agreement.

2. The Employer hereby undertakes to accept the Apprentice as his Apprentice during the term of five (four, three, two) years, and to teach the Apprentice to the best of his ability, or cause him to be taught the trade of .

3. The Employer shall keep the Apprentice under his own supervision, and place him under a fully qualified foreman or journeyman.

4. The Apprentice shall truly and faithfully serve the Employer as his Apprentice at and be diligent to learn his trade, and shall at all times willingly obey the reasonable and

lawful commands of the Employer or his representative, and shall not absent himself from the Employer's service without leave.

5. The Employer shall pay to the Apprentice every week during the term of apprenticeship wages at not less than the following rates:

1st Year—1st 6 months		per week of		hours.
2nd 6	,,	,,	,,	,,
2nd Year—1st 6	,,	,,	,,	,,
2nd 6	,,	,,	,,	,,
3rd Year—1st 6	,,	,,	,,	,,
2nd 6	,,	,,	,,	,,
4th Year—1st 6	,,	,,	,,	,,
2nd 6	,,	,,	,,	,,
5th Year—1st 6	,,	,,	,,	,,
2nd 6	,,	,,	,,	,,

6. The Apprentice shall not, except in case of sudden emergency, be required to work on Sundays, nor on the holidays customary in the trade, nor to work overtime on other days.

7. The Employer shall not hold the Apprentice liable to make good the value of any work or other things which he may spoil whilst learning his trade, except in the case of wilful or malicious damage, and the Apprentice on his part shall take due care of, and not knowingly suffer any damage to be done to any goods, moneys, or other things which shall be put into his care or custody by or on behalf of the Employer.

8. The Apprentice may be dismissed by the Employer for wilful disobedience or serious misbehaviour.

9. The Employer on his part, the Apprentice on his part, and the Guardian on his part, undertake to submit any dispute arising under this agreement to such persons as may be appointed by the Education Committee of

the City Council for the purpose, and undertake to accept the decision or award as binding upon them, and such persons shall have the power of cancelling this agreement and shall have the powers given to arbitrators by the Arbitration Act, 1889.

10. The Employer shall encourage the Apprentice to attend, and the Apprentice on his part undertakes to attend, such classes for technical or general education as may be approved by the Education Committee above for at least hours per week, and in reckoning the number of working hours per week specified in No. 5 above the Apprentice shall be entitled to count any reasonable time during which he may be absent from work for the purpose of attending such classes, and no deduction from his wages in respect thereof shall be made.

11. The Employer shall report to the Education Committee at such times as may be required by the Committee on the progress made by the Apprentice.

12. (An incentive clause to be inserted here making provision for—

(1) A Bonus, or
(2) Antedating Increases of Wages, or
(3) Antedating the termination of the apprenticeship, or
(4) A Prize of a Set of Tools or some similar award on the successful and satisfactory completion of the apprenticeship.)

13. On the satisfactory completion of the apprenticeship the Employer shall sign and attach to this Indenture a certificate of such completion, and this certificate shall be countersigned by an authorised officer of the Education Committee. This Indenture shall then become the property of the Apprentice.

Signatures of Parties to this Agreement.	*Signatures of Witnesses to the Signing of this Agreement.*
.....Apprentice.	Witnessed by.....
.....Guardian.	,, ...
.....Employer.	,, ...

Date of this Agreement.....19

THIS INDENTURE REQUIRES A 2S. 6D. STAMP.

A copy to be given to the Apprentice at the time of signing.

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CHAPTER V

THE SOCIAL WORKER

§ 1. Social Service.

The preceding chapters have shown how essential a part is played by the voluntary social worker. No public authority could pay the little army which is needed to control effectively the welfare side of Juvenile Employment and the field work which is essential to the proper fulfilment of its purpose. Necessary as the official is, there are parts of the work which can be better done by the man or woman who brings a different experience to bear on it. We have therefore to study the social worker. We must understand the motives which bring him into the field, and the point of view which guides him when there. Without this understanding we can do little to shape his activities to purposeful results. We must know the relationship of the work to the complete fabric of human intercourse: the interplay of personal factors between man and man, man and society, one section of society and another.

There are certain well-defined types of social worker who deal with the industrial adolescent. There is the army of men and women who devote the whole or a part of their time to the service of their neighbours—the Social Worker, properly so-called. And there are those who—equally without pay—give their time and energy to directive rather than executive work, and who are to be found the world over on committees and

councils of every kind. These latter appear in our arena at two different points—as members of certain administrative bodies, and as honorary officials of smaller local sub-committees. Of particular value are men with industrial experience who become members of Choice of Employment or Juvenile Advisory Committees, for it is here that both the voluntary social worker and the official most often suffer from a real lack of technical knowledge, both as regards processes of manufacture and the internal organisation of a trade. Of equal importance on these committees are men with special knowledge of the business world or of the management of public affairs. On a different plane is the paid social worker who falls into several categories: the official proper, or the professional man; doctor, psychologist, paid visitor, welfare worker, and last, but not least, teacher and minister of religion

Although the danger of using watertight compartments is obvious, anyone with experience of social work knows how necessary it is to understand the special outlook and sphere of influence of each section of its personnel. Often, and advisedly so, those of one group enter into the activities of other groups, either to carry on the work in hand where there is a temporary shortage of help, or to gain an understanding of their colleagues' work. Over-specialisation and mass-production methods cannot be applied to social work, for its very nature renders it the antithesis of mechanical, and although specialists there must be, such as the eye doctor and the statistician, the mass of workers can never entirely specialise. Within limits their work must be general, and must embrace a considerable variety of activities. The Care Committee organiser may under-

take home visiting, while the club manager may try his hand at the statistical presentation of social conditions.

If we look at the history of social service, we notice that each advance had its beginnings in voluntary effort. And just as past voluntary effort laid the foundations of present-day State action, so does contemporary volunteer endeavour point to the legislation of the future. Our duty as social workers lies in so guiding that effort that its consummation in becoming a part of the recognised communal machine may most help mankind. We have to study contemporary effort, and not accept it as manna from heaven for which to be thankful without giving it a second thought.

Voluntary effort, then, is the path to improvements in State action, and one must remember that quite apart from its objective results its subjective nature as personal service in the social cause is essential to the healthy life of any community. Social service there always has been and always will be, but as each field is in part taken over by the State, it assumes new forms ever centring round the fundamental strivings of humanity towards a better social order. The community establishes institutions to foster and organise its strivings, the Church to deal with spiritual endeavour, the fighting forces to ensure its place among other communities, the machinery of education to help towards a better understanding of its needs and hopes. Each of these institutions arouses the desire to serve, and each performs some of its functions through people who are prepared to give to the service of the community.

Of late there is a more and more insistent feeling not

only that social service is necessary to the life of the State, but that only through service can man express some of his highest instincts. At a recent Church Conference this opinion was constantly emphasised, and definite proposals were made how voluntary work could be utilised in the cause of education. At a conference of Works' Welfare Workers it was agreed that both employers and employed now realise that welfare work is a necessary part of the industrial machine, that not only is paid social work properly included in the scope of industrial management, but that there is equally a place for voluntary work on the part of workers and officials. The same feeling, less definitely expressed, may be observed by anyone who studies the recent changes which have come over the face of progressive industry and commerce. And yet the army of social workers has declined from its pre-war strength, with the exception that there are probably at present more people engaged on committee work than prior to the war. In many of the large towns there has been a critical decrease in the number of active Care Committee helpers, while religious organisations have an increasingly harder struggle to find enough workers. This shortage remains true even when we allow for the men and women occupied by new spheres of the Churches' work.

The causes of this decline are probably, however, only of a temporary nature; some can certainly be traced to the war. The unsettled mental outlook deters people from committing themselves to such work, and there is a natural inertia on the part of the individual in adjusting himself to a changed environment; the machinery for organising social work lags behind

post-war conditions, and an intelligent lead is still wanting in most branches of social work. Probably official mismanagement has discouraged numbers of workers, and until improved methods attract the younger generation there will continue to be a shortage.

Education, and we include within this term Vocational Guidance, is to-day more than ever in need of the stimulus of voluntary work. We are now realising that education neither begins nor ends in the classroom. During the elementary school period the State has taken entire and comprehensive charge, but at either end of this period, in the years before school life begins and in the transition from school to working life, the way for State action is still only being felt. Here are big fields for the volunteer.

Later on these fields, too, will pass more into the hands of the State—they are already doing so. It is often asked what will then become of the voluntary worker whose interests lean towards the child. Probably he will then be able to give his attention to the whole range of childhood and adolescence, for the State organisation may never entirely replace voluntary effort. It may and will make that effort more effective by guiding it into the right channels and by providing trained specialists. At the same time, there is much substance in the fear expressed by social workers, that when once State enterprise finds its feet, it will leave no room for the volunteer, or, if it agrees to retain his assistance, it will be as a hewer of wood and drawer of water. What scope outside committee work does the local Education Authority offer to the would-be voluntary teacher in its schools? or who will call in the help of a voluntary policeman or doctor? In

these, as in many other services, recognition by the commonwealth has meant the death of the individual free-lance. State charity has in some cases left a place for the outside enthusiast, but only as a useful executive tool.

The first public organisation to offer equal partnership to the individual who is outside its official machine was the Care Committee. The Care Committee aims not so much at setting itself up above its constituent members, as at co-ordinating the efforts of a heterogeneous body of social workers, and adding communal recognition of their efforts. Here, again, there is a danger that the " workers " will deal with the mass of ordinary cases, while those of particular difficulty or interest will be monopolised by the official element. True that it is often desirable to hand over such cases to the paid and trained expert, but at the same time the volunteer should be carefully guarded from sinking to a drudge who works at only the humdrum everyday cases. The official often fails to recognise that he exists to co-ordinate rather than direct the work of his unpaid colleagues. The voluntary worker knowing the ways of the official mind should refuse to accept a subordinate rank. If both parties bear this in mind, and *act* upon it, the social worker has little need to fear the growth of State and Municipal work.

§ 2. Unattached Workers.

The great majority of those with whom we are concerned are men and women from all walks of life who wish to devote some of their time to the service of their fellows. Some will devote themselves mainly to Care Committee work, others already connected with a

different organisation will regard after-care work as subsidiary.

The first type should form the backbone of the average Care Committee, partly because it often claims their undivided attention, partly because they usually deal with the unattached boys and girls, who belong to no social organisation, and therefore as a rule are most in need of after-care. A few typical examples of both classes will serve:

(*a*) A lady of independent means who devotes much of her time to after-care work. She not only visits the homes of children about to leave school, and advises them on further education and employment, but keeps in constant touch with them for years afterwards, becoming, in fact, a friend and adviser in its widest meaning.

(*b*) A suburban lady who runs a girls' club, and around her centres manifold activities for the girls under her care.

(*c*) An employee whose chief social activity lies in looking after boys who have left school, and in finding suitable work for them.

(*d*) A group of theological students who take up the work in order to gain experience of social conditions.

(*e*) Church of England curates who find in it a means of recruiting children for Sunday School or Church.

(*f*) A working woman who devotes all her spare time to the Care Committee, because she realises only too clearly the lack of guidance offered to her husband in his younger days.

(*g*) An Oxford man and barrister, who has given most of his life to social work for its own sake.

Evidently each of these should be encouraged to develop on his or her own lines. To attempt to make them all conform to a rigid plan would be fatal both

to themselves and to the system. So far as social after-care is concerned, each of these methods has its good points; no one of them covers the whole field. The girls under the care of (*a*) may have no social club, while those whom (*b*) is interested in may fail to get into touch with suitable employers. Here, then, it is where Municipal organisation comes in—so to co-ordinate these workers that each child may be completely covered.

It is a common reproach against social work that it takes from the parents of poor children the responsibility that rightfully is theirs, and that it opens the door to class patronage. There is a measure of truth in this. The end may justify the means, but the more that the working class can deal with its own problems, the better for all. For this reason many efforts have been made to enlist working men and women in social committee work, and we now find a sprinkling of them on most Juvenile Advisory and After-Care Committees. It has been proved, too, quite practicable to place children when leaving a school in the charge of older ex-scholars from the same school.

§ 3. Student Workers.

Among those whose first interest in social work may well lie in after-care are students. All students engaged in social studies need some kind of practical work, while teachers in training have, as a rule, little opportunity to indulge in practical work other than classroom teaching. They see little of the home life and environment of children of the type which most of them will have to teach. They live in the seclusion of the lecture-room and practising school, and know little of the out-

of-school life of their pupils. Thus, when once they begin to teach in real earnest, the lives of their scholars come somewhat as a shock. It has often been suggested that much of the time devoted to lectures might be more usefully spent in other and more practical forms of activity. What better way of doing this than by undertaking home visiting under the auspices of a Care Committee? Besides, now that Choice of Employment schemes are likely to operate everywhere, most teachers will need some knowledge of their aims and methods. Students working for social diplomas are already expected to do work of this nature, and a beginning has been made in directing training college students to after-care work.

Theological students have the same need. Their work is of a social as much as of a pastoral nature, and as institutional churches become more common, the demand for a socially trained clergy increases. In Birmingham both these classes of students are engaged in Care Committee work. It is true that many students are young and new to the task, but at all events they can more easily understand youth, and they have the keenness to learn and the enthusiasm for results that guarantee good work.

§ 4. Attached Workers.

The second large class of workers consists of persons who belong to organisations not directly concerned with Choice of Employment, but who are naturally interested in the welfare of young people. Church workers, football clubs, members of Co-operative Guilds, residents in settlements, girls' club leaders, elementary school teachers—all these, and many others,

ought to find a place in the general organisation. In the first place, there can be no better clearing-house for common interests and conflicting points of view than the Care Committee, where all may meet with a common objective, and by contact learn to co-operate with one another and to understand one another. There they may discover where the need for service most exists and which youngsters are in danger of falling between two stools where assistance is divided and uncorrelated. The local committee should be (although it seldom is) the nucleus which co-ordinates the hundred-and-one spheres of influence among adolescents. Again, it should be remembered that from 30 to 70 per cent. of the elementary school leavers belong to some organisation. These "attached" cases need to be put into touch with the Employment Bureau, and to do this no one can better supplement the efforts of the teacher than those who come into contact with the children at church or club. Also, the Employment Exchange needs information with regard to the home environment, character, and leisure occupations of those whom it would place in industry. We have seen that much of this information is best gleaned by workers other than the teacher and official, and by none better than those already in contact with the child.

Most attached helpers will be found to enter Care Committee work with an outlook biased by the organisation to which they already belong. Whatever interest they have in this work will be subsidiary to their main endeavour, and will be coloured by the nature of their principal interest. Too many of this type of worker have been lost to Care Committees through inability to make room within the organisation for a wide range

of fundamental interest. At the same time, we have also to deal with the crank, hot on the track of some real or imaginary evil. It may be well to provide an outlet for his energies by incorporating him in the work, but very great care is needed in selecting his particular hunting ground.

§ 5. Recruits and Training Voluntary Workers.

The first problem is to find enough people willing to undertake the work. Left to themselves very few will come forward to ask that work shall be found for them. Two plans of recruiting have proved their value. One is to call public meetings, where the need for workers and the nature of the work may be told. The other, and, except at the inception of a scheme, the best, is by a chain of canvassing, to be passed on from home to home, until here and there a willing volunteer is found. When once a scheme is in operation, public meetings are very useful to hearten the "converted," but as they only attract those who already know of the work, they are of little use in breaking new ground.

The first essential requisite is tact—not, however, to be learnt from lectures. The next is a knowledge of local conditions, and there should be the rudiments of this before any social work is attempted, though it may be left to mature from experience. When a band of workers has been obtained, many of them need to be trained. It is extremely difficult to persuade them to attend lectures, or to submit to any recognised form of training, and the reason is generally a simple one—the very natural disinclination to study after the day's work. Knowledge of industrial conditions may best be gained from visits to local works, and by the issue

of good and brief pamphlets on local trades. In any locality it is easy to arrange for parties to be shown over factories, and good employers will generally be only too willing, when once the position is made clear to them, to give every facility. It is a good advertisement for them, and they are quick to realise any real chance of obtaining an improved supply of labour.

A very useful form of training is to end each meeting of a local committee with a brief lecture by an expert on some branch of employment or social work. Not only does this offer an inducement to workers to attend what are often dull meetings, but it puts before them questions of vital importance to their work. Many new workers feel keenly the need for guidance in the technique of home visiting, and may not, perhaps even after years of experience, hit upon the best method of carrying it out. The result is that they fall short of their own ideal, lose heart, and fail as social workers. An effective cure is to allow a new recruit to work hand in hand with a more experienced worker for a time. Everything that is possible should be done to reduce the leakage of workers who have been recruited and more or less trained. The loss of a worker is often due to his seeing no apparent results from his labour, and he should be kept in constant touch with any following-up of a case which an official may undertake. When once a worker has taken charge of a case, however much the official has to help in order to bring it to a successful conclusion, he should be regarded as having the case in hand, and should be promptly informed of each new development. When worker and official co-operate neither should lose interest.

§ 6. Honorary Officials.

There are many to whom administrative work appeals most, and for these there is a place as honorary officials. Whatever scheme may be in operation in a district, it must necessarily work through decentralised local committees, and these sub-committees have to be supplied with officials responsible for their everyday life. In the interests of economy, as well as to find work for volunteers who have this bent, such business as the calling of meetings, the distribution and collection of reports, and so on, may with advantage be carried out by unpaid workers. Cases where voluntary officials have failed to carry out their work effectively have prompted the criticism that voluntary officials have proved themselves a failure. Occasional failure there certainly has been, but it has been the result of bad selection and failure of paid and unpaid alike to understand each other's spheres, more often than of incompetence or slackness. There is no *prima facie* reason why volunteers should not prove as successful in this as in other forms of occupation. But the professional worker must pay a little more attention to his amateur colleague and try to understand his difficulties. The volunteer often fails because he cannot grasp the exact nature and scope of his work. Hence he misses results, thinks himself useless, and sends in his resignation.

The activities of honorary officials lie in two directions. There is work of the " clerk to committee " type, such as the calling of meetings and the keeping of minutes, and there is the task of distributing cases among the workers. The two require very different qualifications. The committee clerk (administrator)

needs some knowledge of the nature and ways of committees, and must naturally be of a businesslike turn of mind. It seems to matter little whether he is a teacher or layman so long as he possesses these qualifications. The distributor of cases, on the other hand, should invariably be a teacher, and should carry on his duties in both capacities in one and the same school. He needs a personal knowledge of the children whom he passes on to his helpers, and he needs to know the helpers to whom he passes them on. Otherwise there will be misfits between child and mentor. The distributor will constantly be meeting with (to him) new types of cases, and cases belonging to organisations with which he has not previously worked. This necessitates a somewhat detailed knowledge of the workers and institutions within his area, and a teacher, if he takes an interest in his school and its environment, has this knowledge.

The chairman has the greatest influence for good or ill on a committee, and influence at least as great as that of any of the officials, and there is too much tendency to choose him for his local position rather than for his suitability for committee work. It is more important to have a man in the chair who can get through the agenda in a businesslike manner than one who can or cannot command obedience, even though he be the local Pooh-Bah. It is of even greater importance that he should understand his locality and its population, for only then can he give an intelligent lead. The least desirable type of all is the man who undertakes the chair of a small local committee, not because he is interested in the work, but because it may prove a convenient stepping-stone to local political power.

§ 7. The Paid Official.

Lastly, there is the paid official, who may be engaged on either administrative work or visiting, or on both. In England the tendency is to concentrate on the administrative side, leaving such technical work as is undertaken to the outside expert or the untrained efforts of volunteers. In some countries the doctor, the psychologist, and the statistician are given a definite place in Choice of Employment schemes, and carry on their specialised activities under the general guidance of the administrators, and until such technical work is similarly delegated here to the proper experts, there will remain truth in the gibe: "Choice of Employment in England is administration plus rule of thumb."

If, however, we consider the official as a social science student, and not as administrator—for the two must eventually be differentiated—we find several possible ways in which he may be trained, although at present the various methods are only feeling their way towards perfection. Social Diploma Courses are given in some Universities in this country, and are probably the best general accessible means of training. They are generally admitted to be in advance of similar courses in other countries, but in many ways they are too superficial and hurried, and there is too little practical work. The responsibility for this rests on the low value set on the trained social worker. Were more recognition extended to this class of public servant, the capital which he could afford to sink in training would be greater, and the Universities would automatically provide fuller courses. We give at least four years to the training of a doctor, but only one, or

at the most two, to training social workers and teachers! Apart from this, there is much to be said against the usual system of regarding theoretical training as necessarily preliminary to practical work. The two should be intermingled and sink into the mind side by side.

A nearer approach to this is provided by the University of London's Ratan Tata Department of Social Science and Administration, where courses extend over one or two years and secure a constant mixture of practical and theoretical work. The student attends lectures for about half the week, and for the rest is attached to a C.O.S. or Children's Care Committee, or works as an assistant in some other form of social work. A more practical but less organised and systematic training is given by the University Settlements; so far as training goes, residence in one of these is probably best confined to those who are attending at some regular social study course, and those who would undertake work more in the nature of a post-graduate course.

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CHAPTER VI

THE LAW RELATING TO THE INDUSTRIAL ADOLESCENT

§ 1. Law as a Social Science.

"The Law," said Dr. Johnson, "is the last result of human wisdom acting upon human experience for the benefit of the public." It is, at any time, the total acknowledgment by the community, for the good of the community, of previous endeavour and achievement. It is constantly changing, but at any moment it is the last *recognised* word. To the voluntary worker the Law concerning the Industrial Adolescent has a twofold interest: it is the result, however imperfect and incomplete, of his past work, and it is a beacon of light for his present activities. He is ever exploring ahead of the law, and so we may here take the existing law as one of the tools of the social worker's trade, or we may think of social work as preparing the ground for better laws in the future. At all events, we have got to take the law as it is. Social workers make a grave mistake when they claim that regard for the law is inconsistent with ideals of their work, and ask that they may work untrammelled by restrictions. Law is, of course, necessary for social progress. In the modern State law has come to affect every back-walk of life, and however much its intricacies have to be left to the lawyer, the worker in any field needs some knowledge of its provisions and working. The worker is urged to

look up the full text of any sections of an Act required, together with precedents, before acting on it. And if the social worker hopes to prepare the way for future legislation, he must study the science of law: how it is constructed, what it aims at, how part is linked to part, and what are the principles governing its development and application.

§ 2. The Law and Adolescence.

The law relating to young persons is part of the mass of social legislation which began when the Industrial Revolution and the régime of *laissez-faire* in industry was found to degrade them morally, physically, and mentally. Owen, Richard Oastler, and Michael Sadler called attention to the horrible conditions under which women and children worked in factories, and the resulting legislation mainly took shape in the various Factory Acts. Legislation for juveniles has only assumed its present state by slow stages, culminating in the Children Acts, the Factory and Workshop Acts, and the later Education Acts. At present these three are interwoven to a considerable extent, and each touches matters which are more concerned with one of the other two, while, although these Acts form the mainstay of the law of juveniles, there are many other Acts with special clauses affecting the employment and treatment of young people.

§ 3. The Children Act, Part II.

After sporadic attempts to prevent cruelty to the young from 1802 onwards, an Act was carried in 1889 to deal on broad lines with the neglect and ill-treatment of children. The principles of this Act were sub-

stantially re-enacted in the Prevention of Cruelty to Children Act, 1904, which statute forms the basis of this part of the 1908 Children Act.

Under this Act* any person over the age of sixteen years responsible for the charge of a young person who is found guilty of committing certain offences, may be convicted by a court of summary jurisdiction with very considerable penalties. For the purpose of this part of the Act the person having responsible charge ("custody") of a young person is the parent or guardian, and in the case of parents, if the father has in any way ceased to reside with the mother, he is still the responsible party.† Any person to whom the parents have handed over the care ("charge"), and any person who has the actual possession or control of the young person is deemed to have "care" of it, and is then responsible.

The Act sets out, among others, the following offences, which, if likely to cause a young person unnecessary suffering or injury to his health, are misdemeanours, and punishable as the Act directs:

Assault.—An assault is an attempt to offer to cause bodily hurt to another by force or violence, as by striking with a stick, even though the striker misses his aim. Mere words, however insulting or provocative, do not constitute an assault, but detention against a person's will does.

* It should be understood that no complete account, or, unless specifically stated, no wording of the Acts under consideration, is attempted. Reference is only made to those sections likely to concern After-Care and Choice of Employment workers.

† Unless the mother has been given the custody of the child as the result of legal action.

Ill-treatment.—This consists of "any harsh, unkind, or cruel act or omission likely to cause suffering or injury to the person, whether mental, moral, or physical." The clear meaning of this section is to protect from cruel actions or words which may produce undue fear, nervous shock, or the like.

Neglect is the omission to take such steps as a reasonable person would take to provide medical aid for a sick child,* clothing, medical aid, or lodging. If the means of procuring these are lacking, neglect to obtain them under the Poor Law, or from the local Education Authority in the case of free meals (where such are provided), is an offence.

Begging and Street Trading.—Begging is taken as meaning a young person's presence in any place for the purpose of begging, notwithstanding any pretence of singing or performing or offering anything for sale.

Under the Employment of Children Act, 1903, local authorities may make certain bye-laws for the employment of children and young persons. The most important of these concern street trading. Such bye-laws may—

(1) Prohibit street trading, except subject to such conditions as to age, sex, or otherwise, as may be specified in the bye-laws, or

(2) Regulate the conditions upon which licences may be granted, suspended, or revoked.

(3) Determine the days, hours, and places when and where such street trading may be carried on.

(4) Require street traders to wear badges.

(5) Regulate generally the conduct of such street traders, provided that poverty or general bad character

* R. *v.* Senior C.R. (1899), 1 Q.B. 283. If neglect to provide aid results in the death of a child it is held to be murder.

shall not be deterrents to the granting of a licence, and that special regard shall be paid to the undesirability of the employment of girls in streets or public places. Thus the following typical bye-laws have been framed:

District.	*Minimum Age.*			*Young Persons (Hours).*	*Sunday Employment.*	*Remarks.*
	Boys.	*Girls With Parent or Guardian.*	*Girls Without Parent or Guardian.*			
City of London	14	14	16	6 a.m. to 9 p.m.	—	Boys under 16 not to trade in streets unless exempt from school attendance.
Manchester	12	12	12	Oct. 1 to March 31, 6 a.m. to 8 p.m.; April 1 to Sept. 30, 6 a.m. to 9 p.m.	—	Consent of unfit parent or guardian not required. To be properly clothed. Girls not allowed within one mile of Town Hall.
Warrington	12	14	14	Oct. 1 to March 31, 6 a.m. to 8 p.m.; April 1 to Sept. 30, 6 a.m. to 9 p.m.	Prohibited (except boys 14 to 16)	Girls not allowed in railway stations and certain streets.

Brothels, Seduction, Prostitution, Etc.—Heavy penalties are prescribed for any person having custody, charge, or care of a young person under sixteen who allows that young person to reside in or frequent a brothel, or, in the case of a girl, who causes or en-

courages her prostitution. A person shall be deemed responsible if he has knowingly allowed the girl to consort with, or to enter or continue in the employment of, any prostitute or person of known immoral character. In addition to offences specified under the Children Act, the following offences against children are provided for in the Offences against the Person Act and the Criminal Law Amendment Act: manslaughter, common assault or battery, aggravated assault upon any male child under fourteen, or upon any female; attempt to commit indecent assault upon any female; attempting to have carnal knowledge of any girl under sixteen; attempting to commit the same upon a male person; procuring defilement by threats, frauds, drugs; unlawfully and carnally knowing any girl under thirteen; attempting the same; unlawfully and carnally knowing, or attempting to know, any girl between thirteen and sixteen, or any female idiot or imbecile woman or girl under circumstances not amounting to rape; householder permitting girls under sixteen to be defiled on his premises; abduction of a girl under eighteen with intent to have carnal knowledge; unlawful detention of a girl under sixteen with intent to have carnal knowledge in any premises or brothel; gross indecency by any male person with another male person.

When there is reason to believe that any of these offences has been committed, a constable or other person authorised by the justices (in some cases certain school attendance officers) may take the young person or child to a place of safety—*i.e.*, workhouse, police station, hospital, or other suitable place—the occupier of which is willing temporarily to receive such person. When a young person or child is taken to, or seeks, a place

of safety, he may be detained there until he can be brought before a court of summary jurisdiction, when the court may further detain the child pending proceedings.

Disposal or Maintenance of a Child or Young Person by Order of Court.—A court may, under certain conditions, remove a child or young person from the care of persons convicted of the above offences, and may either commit him for trial, bind him over, or commit him to the care of a relative or other fit person (*e.g.*, a society for the care of poor children) until he attains the age of sixteen, or for any shorter period. The person or society who accepts this responsibility is empowered to act in the ordinary capacity of parent or guardian, and any attempt to remove the person from such care is an offence. The court is directed* to endeavour to see that the person having such care shall be of the same religious persuasion as the young person concerned.

A Justice, acting upon information given on oath by any person acting in the interest of a child or young person, may issue a warrant for the search of the suspected premises where the offence is thought to have been committed, and may order the persons implicated to be taken into custody. In addition,† the court may make an order that a juvenile offender shall be placed under the care of a Probation Officer, either alone or in conjunction with the person accepting responsibility as above, provided that the young person's recognisance requires him to appear before, and submit to, the further order of the court.

* Children Act, 1904, Part II., Section 8.

† Children Act, 1904, Part I., Section 60, and Probation of Offenders Act.

Evidence.—Ordinarily, evidence affecting young persons follows the Criminal Evidence Act. Where a young person or child is unable for duly certified medical reasons to attend court in connection with a case under the Children Act, a deposition may be taken.* In the case of evidence from a child of tender years, it is left to the court to decide whether the child is of sufficient development to understand the nature of an oath, and to accept unsworn statements if there is sufficient faith in the child's truthfulness. But such evidence should, whenever possible, be supplemented by evidence on oath by some other person. It is also left to the discretion of the court to dispense with the attendance of a child or young person in proceedings relative to any of the above offences under the Children Act, when such attendance is not considered to be essential. (N.B.—The law is not identical in Scotland.)

Proceedings may be taken with regard to this part of the Act by a Board of Guardians, or, with the consent of the Local Government Board, by any body corporate or society for the prevention of cruelty to children to which the Board of Guardians subscribe.

Rights of Parent, Guardian, Teacher, etc.—Nothing in this Act is to take away the rights of a parent, teacher, or other person in lawful charge of a child or young person to administer punishment, provided that the punishment is not excessive.

§ 4. The Children Act, Part III.—Juvenile Smoking.

Under this part of the Act it is made an indictable offence to sell cigarettes† or cigarette paper to any

* Under the Indictable Offences Act, 1848.

† This expression is deemed to include "tobacco rolled up

person apparently under the age of sixteen. It is the legal duty of any constable or park keeper (in uniform) to seize cigarettes in the possession of any such person whom he finds smoking in any public place, and to dispose of them as may be directed by the police or park authorities. He may also search any boy or girl found smoking in a public place.

Where it is suspected that an automatic machine for the sale of cigarettes is extensively used by persons under sixteen, a court of summary jurisdiction may, upon complaint made to it, order precautions to be taken by the owner of the machine, or of the premises where it stands, for its proper use.

The reference to the sale of cigarettes does not apply to employees engaged in the manufacture or sale of tobacco, or to boy messengers in uniform. It is the general opinion of social workers that this section of the Act is a dead letter.

§ 5. The Children Act, Part IV.—Reformatory and Industrial Schools.

This part of the Act was the outcome of a large number of measures extending from 1854 to 1907, which govern the relation of the young person or child to the State when the State assumes the care, control, or custody of such persons for a longer or shorter period. During recent years the penal consequences of juvenile crime have undergone considerable change. The present Act makes them depend on the degree to which the offender

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in paper, tobacco leaf, or any other material," as well as any other tobacco or smoking mixture intended as a substitute for tobacco.

knows his act to be criminal, and divides minority into three age divisions. A child under seven years of age is assumed to have no knowledge of guilt, and is therefore unpunishable. Between seven and fourteen a child is still deemed *prima facie* to be incapable of committing crime, but the assumption may be refuted by evidence in the particular case or in any preceding case in which the child has been concerned. From fourteen to twenty-one an infant is fully responsible for criminal acts, although the punishment differs from that applicable to an adult. The law, in fact, tries to "make the punishment fit the crime" on the correct assumption that the crime is measurable to some extent by the stage of development of the offender.

Industrial Schools are intended for children as yet untainted by crime, while Reformatory Schools are intended for criminal children only. This distinction is clearly drawn, and is of the utmost importance. To the Industrial Schools are sent children who are destitute, vagrant, refractory, living under bad conditions, or neglected by parent or guardian; to Reformatory Schools are sent children of from twelve to sixteen who have been found guilty of a crime.

A youthful offender between the ages of twelve and sixteen may, in lieu of other punishment, be sent by a court to a certified reformatory school, but in no case may this be additional to a period of imprisonment. In cases where an order to this effect has been made, and the offender is above fourteen, and where no reformatory school is willing or able to receive him, the Secretary of State may order such alternative punishment as might have been originally made.

Any person may bring before a petty sessional court a child apparently under the age of fourteen who—

(*a*) Is found begging or receiving alms; or

(*b*) Is found wandering and having no settled home or place of abode or visible means of subsistence, or who is found wandering and having no parent or guardian, or a parent or guardian who does not exercise proper guardianship; or

(*c*) Is found destitute, not being an orphan, and whose parents or surviving parent (or, in the case of an illegitimate child, the mother) is undergoing penal servitude or imprisonment; or

(*d*) Is under the care of a parent or guardian who, through criminal or drunken habits, is unfit to have the care of the child; or

(*e*) Is the daughter, whether legitimate or illegitimate, of a father who has been convicted under section 4 or 5 of the Criminal Law Amendment Act, 1885, in respect of any of his daughters, whether legitimate or illegitimate; or

(*f*) Frequents the company of any reputed thief or any common or reputed prostitute; or

(*g*) Is lodging or residing in a house or any part of a house used by any prostitute for the purposes of prostitution, or is otherwise living in circumstances calculated to cause, encourage, or favour the seduction or prostitution of the child. (This does not apply if the prostitute be the child's mother, provided that she exercises proper care of the child, and takes due precautions to protect the child from contamination.)

If the court is satisfied as to the facts, any child coming under these categories may be sent to an industrial school. In place of sending a child to an industrial school, a court may commit him to the care of a fit person as under Part II. of the Act (p. 145). A young person apparently of the age of fourteen or

fifteen years, who if he were a child would come under the above schedule, may be committed by the court to the care of a fit person as under Part II. of the Act.

Delay in Giving Effect to a Detention Order.—If for any reason a detention order is made, but is not to take effect, and the youthful offender is unfit to be sent to a certified school; or if the school to which the offender is to be sent cannot be ascertained until enquiry has been made, the court may order him to be committed to the custody of a relative or other fit person to whose care he might have been committed under Part II. of the Act (see p. 150), or it may place him on remand under Part V. of the Act (see p. 157). The court may do the same if he is committed to trial at a later date, always provided that he is not so unruly or depraved as to make him unfit to be so detained.

For the purpose of placing young offenders on remand the police authority for every petty sessional division is required to approve a place of remand, which may be supported by private individuals, or public or voluntary organisation. Such remand homes have been provided in most large towns, and in the majority of cases by voluntary effort.

Placing out on Licence.—Where an offender is in a certified school, the managers of the school, after the expiration of eighteen months, or sooner if the child was sent to the school on the instance of a Local Education Authority, may with the consent of that Authority in the latter case, or in other cases with the consent of the Secretary of State, licence the offender to live with any trustworthy and respectable person willing to receive and take charge of him.

Supervision after Expiration of Period of Detention.—Every youthful offender, after the expiration of his period of detention, if that be prior to his reaching the age of nineteen, shall remain under the supervision of the managers of the school. In the case of a child sent to an industrial school this shall be until he reaches the age of eighteen, except where detention was for the purpose of enforcing attendance at school. Such licences may be revoked by the managers, who may recall the person to school for a period not exceeding three months.

The Secretary of State may at any time discharge an offender from a certified school, or may order his transference to some other certified school, or the managers of a certified school may, after the expiration of twelve months, or earlier with the consent of the Secretary of State and with the offender's own consent, place him in the Army or Navy, or emigrate him (see p. 201), and such apprenticeship or emigration shall be valid, as if the managers were his parents.

Cost of Maintenance.—In the case of a child sent to a certified school, the Local Education Authority shall cover the cost of his maintenance, except (1) when detention is due to the initiative of parent or guardian on the grounds that the child is beyond their control; or (2) at the request of a Poor Law Authority, because the child is refractory, or because either of his parents has been convicted of an offence punishable by penal servitude or imprisonment; or (3) when the child has no settled abode, and is constantly moving into the areas of different Local Education Authorities; or (4) when contribution is made towards his maintenance out of monies provided by Parliament.

When the parent, or other person responsible for the maintenance of a youthful offender or child, is able to contribute towards his maintenance at a certified school, the court, in making the order for detention, shall also make an order for the payment of a weekly sum by the parent or other person. The court may, under certain conditions, subsequently vary the order.

§ 6. The Children Act, Part V.—Juvenile Offenders.

As this part of the Act has been discussed at some length in Chapter II., it is sufficient here to mention briefly some of the legal principles underlying its conception and administration. The voluntary worker is rarely concerned closely with the actual process of trial of youthful offenders, and it is perhaps needless to attempt any detailed account of the legal procedure.

The principles upon which the law in relation to juvenile offenders is based are three, and may be shortly stated as follows:

(*a*) The juvenile offender is regarded as not responsible to the same degree as an adult; the primary object in the latter usually aims more at punishment and less at reformation than where juveniles are concerned.

(*b*) The parent or guardian of an offender is held to be responsible for his child.

(*c*) Every effort is made to avoid producing gaol-birds by premature imprisonment.

Unless the charge is a serious one, all young offenders must be released on bail pending trial, and when detained, special places of detention must, as a general rule, be provided. Further, the trial of a juvenile offender is dissociated, as far as possible, from the

police court. Under the Act it is required that any court to try them shall sit in a different building, or at least in a different room, from that used as an adult court, and, where possible, on different days to the ordinary court. Only those concerned with the case are allowed in a juvenile court, with the exception of reporters. Juvenile cases are, however, rarely reported by the newspapers.

The Act allows the following alternatives in dealing with a case:

(*a*) Dismissal of the charge.
(*b*) Discharge on giving security.
(*c*) Discharge and supervision by a probation officer.
(*d*) Committal to relative or fit person.
(*e*) Sending to an Industrial School.
(*f*) Sending to a Reformatory School.
(*g*) Whipping.
(*h*) Fine, damages, or costs.
(*i*) Fine, damages, or costs against parent or guardian.
(*j*) Parent or guardian to give security for good behaviour.
(*k*) Committal to place of detention.
(*l*) Imprisonment.
(*m*) Treatment of any sort which may legally be prescribed.

§ 7. Borstal Institutions. Prevention of Crimes Act, 1908.

Where a person is convicted on indictment of an offence for which he is liable to penal servitude or imprisonment, and that person appears to the court to be (1) not less than sixteen and not more than twenty-one, and (2) by reason of his criminal habits or tendencies, or association with persons of bad character, in need of detention calculated to be conducive to his reformation

and the repression of crime, the court may, in lieu of passing sentence of penal servitude or imprisonment, pass a sentence of detention in a Borstal Institution for a term of not less than one year or more than three years. The Secretary of State may, in certain cases, substitute the age of twenty-three for twenty-one. Power is given to remove to a Borstal Institution a youthful offender who breaks the rules of the Reformatory School, or, with the permission of the Secretary of State, an inmate of a prison.

Borstal Institutions are established and maintained by the State; young offenders are detained in them under proper disciplinary and moral influences, and are given suitable general and industrial instruction. As in the case of Reformatory Schools, provision is made for release on licence, under suitable conditions, of young offenders who are undergoing a period of detention. All persons released at the termination of their sentence must remain under the supervision of the Prison Commissioners for a further six months. Such licences may be revoked, and the offender recalled for a period not exceeding three months. Under certain conditions incorrigibles may be transferred to a prison.

EMPLOYMENT OF CHILDREN AND YOUNG PERSONS

§ 8. Medical Fitness for Employment.

In the early days of factory legislation it was difficult to ascertain the exact age of a juvenile, since there was no compulsory registration of births, and no compulsory education. Because of this the Factory Acts from 1833 onwards required that all children

entering employment should be examined by a doctor in order that he might certify their ages as nearly as possible. As this involved a system of medical inspection, it naturally followed that the doctors had to discover not only whether a child was of the statutory age for employment, but also whether he was physically fit for it. Thus, in 1867, all persons under sixteen upon entry into a factory, or upon change of employment, had to be certified for medical fitness. In 1878 this was extended to workshops, but was not enforced for thirty years, till, in 1906, a preliminary examination was required for entry into workshops where the following occupations were carried on:

File cutting.
Carriage building.
Rope and twine making.
Making of iron and steel cables, chains, anchors, grapnels, and cart gear.
Making of nails, screws, and rivets.
Making bread, biscuits, and confectionery.
Fruit preserving.
Making, ornamenting, finishing, or repairing wearing apparel by the aid of treadle sewing-machines.

When births were registered and compulsory education came in with its attendance officers, the need for a medical investigation of age ceased, and the Certifying Factory Surgeons lost importance. Fortunately, legislation was slow, and Factory Surgeons were not abolished, and thus were available when the growing interest in the welfare of young persons gave them new duties in rejecting unsuitable applicants for employment, or prescribing its conditions. The inclusion of certain workshops in the 1906 Act indicated that medical

certification was to play an important part in the labour regulation of the future.

As the law stands at present, the Factory Surgeons have the following powers. A young person under the age of sixteen may not be employed in a factory unless the occupier has obtained within seven working days (occasionally thirteen working days) a certificate of the fitness of that young person for employment in it. The main regulations with regard to certificates are:

(1) They are granted by the certifying surgeon after a personal examination of the young person, and must show his conviction that the person's age is correctly stated, and that he or she is not incapacitated by disease or bodily infirmity from working the proper hours in the factory in question.

(2) The surgeon may further qualify the certificate by conditions as to what the person is fit to be employed upon.

(3) Such certificates are not needed for workshops, although the Home Secretary may class workshops used for certain trades as factories for the purposes of this Act.*

The establishment of a school medical service in England and Wales in 1907, and in Scotland a year later, provided local authorities with officers who should have proved useful in administering the Employment of Children Act, but unluckily no satisfactory means of co-operation between school doctors and factory surgeons was evolved. The Education Act, 1921 (Section 10), provides for the establishment of day continuation schools with compulsory attendance for eight hours a week between the ages of fourteen and sixteen and eventually eighteen, and, at the same time,

* Factories and Workshops (Consolidating) Act, 1901.

makes provision for medical inspection of persons attending these schools. If the time ever comes when this section of the (now 1921*) Act is put into operation, there should be considerable co-ordination between the two sets of medical officers.

§ 9. Minimum Age for Employment.

The fixing of a minimum age for employment is the most important means of regulating juvenile labour. Under the early Factory Acts of the '80's children were prohibited from entering certain trades under a prescribed age, and more recently the Home Secretary has been empowered to make orders limiting the age of employment in dangerous trades.

Women, children, and young persons may not be employed in the following dangerous and unhealthy occupations:

(1) The mercurial process of silvering mirrors.
(2) The process of making white lead.
(3) Melting or ornamenting of glass (female young persons).
(4) Making or finishing bricks or tiles, not being ornamental tiles (girls under sixteen).
(5) Making and finishing of salt (girls under sixteen).
(6) Manipulation of dry compounds of lead, or in "pasting" (manufacture of electric accumulators), the making of lead colours or paints.
(7) Work on horsehair from China, Siberia, or Russia which has not been previously disinfected.
(8) Any enamelling process in the vitreous enamelling of metal or glass (under sixteen).
(9) The tinning of metal hollow ware, iron drums, or harness furniture (under sixteen).
(10) Certain processes in the manufacture or decoration of pottery.

* Previous Education Acts have been codified in the 1921 Act.

(11) Working between the fixed and traversing parts of a spinning mule in motion.

(12) Work in rooms where bisulphide of carbon is used in the vulcanising of rubber. (Children and young persons.)

(13) Shunting of locomotives and waggons on factory lines. (Boys and girls under sixteen.)

(14) Working capstans for the traction of waggons on rails.

The minimum age for any full-time employment was fixed by the Factory and Workshops Act, 1878, at eleven, or, with a certificate of proficiency, thirteen, while the Education (School Attendance Provisions) Act, 1900, forced local authorities to pass bye-laws fixing the minimum school-leaving age at thirteen, or, where the local authority so desired, fourteen. Under the Education Act, 1921, the age has been raised to fourteen, or, at the option of a local authority, fifteen.

The Women, Young Persons, and Children Employment Act, 1920, allows no child under fourteen to be employed in an "industrial undertaking," which is not very clearly defined but practically covers all manufacturing processes, but not commercial or agricultural employment. A child liable to school attendance and over twelve can be employed out of school hours, and only to such limited extent and in such occupations as the local bye-laws permit.

§ 10. Working Conditions.

In the case of factories or workshops in which lead, arsenic, or other poisonous substance is so used as to give rise to dust or fumes, meals must not be taken in the workrooms, nor may anyone remain there outside

working hours; separate dining-rooms and suitable washing arrangements must be provided.

The Factory Acts and Public Health Acts also require the suitable ventilation, heating, cleaning, and drainage of factories and workshops. These provisions are enforced by the factory inspector or the Local Government Board.

§ 11. Working Hours.

The Factory Acts control the hours of labour in four classes of work—viz., textile factories, non-textile factories and workshops, domestic factories and workshops, and women's factories. A textile factory is defined as a place where power is used for any process connected with the manufacture, preparation, or finishing of any vegetable or animal fabric for the purpose of making any material or fabric. There are, however, certain exceptions which are defined as non-textile factories—*i.e.*, bleaching works, dyeing works, lace warehouses, paper mills, flax scutch mills, rope works, and hat works. Again, broadly speaking, a non-textile factory is a place where power is used for the manufacture of goods other than textiles. A workshop is a place where power is not used, whether for the making, finishing, repairing, or ornamenting of any article. Domestic factories or workshops include any private house, room, or place, which is also used as a dwelling, though a factory or workshop within the meaning of the Act.

Outside working hours the following rules are enforced among others:

(1) A woman or young person must not, except during the normal period of employment, be employed in the business of the factory or workshop on any day

during which he or she is employed in the factory or workshop both before and after the dinner-hour.

(2) All women and young persons must have times allowed for meals at the same time, and during the time allowed for meals must not remain in the room where a manufacturing process is carried on. This does not apply to blast furnaces, iron mills, glass works, paper mills, or letterpress printing works.

(3) Women and young persons may not be employed on Sundays, or (in England) Christmas Day, Good Friday, and Bank Holidays, unless, in the latter case, another approved day be substituted.

(4) The Secretary of State may by special order permit the working day to be from 9 a.m. to 9 p.m. in any class of non-textile factory or workshop (except on Saturday) when the customs or exigencies of the trade require it, and where such working hours will not be injurious to the young workers. The normal allowable working day is one of eight hours.

(5) Overtime is, in general, not allowed for young persons, but where a process is not completed at the end of the normal day, overtime may be required up to thirty minutes, provided that the total hours worked per week do not exceed those otherwise allowable under the Act. This extension is allowed in bleaching and dyeing works, foundries, and paper mills.

§ 12. Wages.

Minimum wages are legally enforceable in certain industries, and there are at present four Acts of Parliament which concern themselves with wage regulation. Out of the national miners' strike of 1912 sprang the Coal Mines (Minimum Wage) Act; in 1917 the Corn Production Act set up Boards to determine the minimum wages payable in agricultural industries—*i.e.*, farms, osier land, woodland, orchards, market gardens, and nursery grounds, which provisions are now again in

force. The earliest wage legislation in this country was, however, the Trade Boards Act, 1909, followed by another Trade Boards Act in 1918. The earlier Act, which was the outcome of the new economic thought, and which was, to some extent, based on earlier Victorian legislation, set up Boards to fix wages in certian scheduled trades. These Boards were to consist of representatives of both employers and workers, together with "Appointed Members" not connected with the trade under consideration, and were to have power to regulate wages varying according to locality, different processes in the same trade, age, and experience. Thus, special rates are often made for learners. In the case of women workers, the general scheme has been to class all under eighteen as learners, and to grade their pay according to age. The Ministry of Labour may order any trade in which the rates of pay are seriously low, and where no adequate machinery exists to regulate wages, to be brought within the scope of the Acts.

§ 13. The Education Acts.

The codified Education Act of 1921 collects into one piece of legislation the many earlier Education Acts. Among its provisions are those affecting school attendance. Briefly they are:

(1) The parent of every child of not less than five and not more than fourteen years of age shall cause the child to attend school unless there is a reasonable excuse for non-attendance.*

* When a child reaches the age of fourteen years during a school term, attendance at school is compulsory until the end of that term.

(2) Blind children are under obligation to attend school between the ages of five and sixteen years; deaf, defective, and epileptic children between seven and sixteen years.

(3) Local authorities have power to raise the school-leaving age from fourteen to fifteen years, with the consent of the Board of Education.

The maximum penalty for a breach of the bye-laws is 20s. for each half-day's absence.

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APPENDIX I

UNEMPLOYMENT INSURANCE

UNTIL lately the administration of Unemployment Insurance was entirely in the hands of the Ministry of Labour. The Unemployment Insurance Act of 1923 made it possible (see p. 8, *et seq.*) for local education authorities to undertake this work in connection with juveniles between the ages of sixteen and eighteen.

Although voluntary workers have little to do with this side of a local authority's work among adolescents, certain features are of interest and value to them in gaining a proper understanding of their duties. In undertaking such work, authorities agree to carry out, among others, the following duties:

(I.) To issue and exchange unemployment books for all juveniles or their employers who may apply for them at a Juvenile Employment Office of the Authority.

(II.) To take claims for benefit from any juvenile who may apply therefor at a Juvenile Employment Office of the Authority.

(III.) To take evidence of unemployment from juveniles who claim benefit at a Juvenile Employment Office of the Authority.

(IV.) To obtain evidence that all the statutory conditions for the receipt of benefit are fulfilled, and that the claimant is free from disqualification for the receipt of benefit.

(V.) To pay benefit at weekly intervals.

(VI.) To investigate claims for benefit, including the verification of particulars by personal visits, where necessary.

(VII.) To consider claims for Extended Benefit—that is to say, benefit payable under paragraph (3) of the Unemployment Insurance (No. 2) Act, 1924—and make recommendations thereon to the Minister. For this purpose such claims will be referred to a special committee, which shall include representatives of employers and employed in insured occupations to the number of two-thirds of the total membership of the committee. Service on such a committee is one of the few points at which voluntary workers may come into contact with insurance work.

(VIII.) To furnish such statistical and other returns and reports as to Unemployment Insurance as may from time to time be required by the Minister.

The actual conditions for the receipt of benefit are varied to a certain extent from time to time, and it is, therefore, considered inadvisable to go into much detail here.

There are three types of benefit which concern juveniles:

(i.) Standard Benefit, which is payable in proportion to the number of the contributions standing to the claimant's credit.

(ii.) Extended Benefit, which is payable to the claimant who has no contribution available for benefit. The decision in cases of Extended Benefit lies with the committees mentioned under (VII.) above, and, at the direction of such a committee, is payable after any Covenanted Benefit has been exhausted.

(iii.) Dependants' Benefit (very rarely).

Benefit is not payable unless certain conditions have been complied with by the claimant, and the more important of these are that he shall not have left his last employment of his own free will; that he shall sign the unemployment register every day, except when

he is excused on account of the distance of his home from the exchange, or for certain other reasons, and that he shall sign for three waiting days for which no benefit is payable. Should he fail to sign for a certain period he must repeat his claim for benefit, and undergo such formalities as may be required, before any further payment is made.

In many areas attendance at an Unemployment Centre or school is required for specified hours on certain days of the week as a condition of receiving benefit, although partial and total exemptions are made where the claimant lives at a considerable distance from the nearest centre.

The present rate of benefit is 1s. per day for girls and 1s. 3d. per day for boys.

APPENDIX II

SOME EXAMPLES OF THE TESTING OF SUITABILITY FOR CERTAIN OCCUPATIONS

(See p. 74 for an explanation of " R "—the correlation coefficient given in the last column.)

QUALIFICATIONS FOUND

Occupation.	*Tests Due to—*	*Natural Abilities.*	*Attainments.*
Assembling	H. C. Link in a Small Arms Factory	(1) Manual dexterity (2) Perception of form (3) Strength of grip	—
Clerical (general)	S. Cody for Business Standards Association	(5) Fairly high level of intelligence	(1) Accuracy and speed in handling figures (2) Correction of spelling, punctuation (3) Reproducing instructions (4) Composition
Clerical (general)	H. C. Link for Office, U.S.A.	(1) Fairly high intelligence (2) Motor steadiness	(3) Fairly high attainments
Clerical (general)	L. L. Thurstone	General intelligence, no special abilities	Fair general level

TO BE IMPORTANT.

Tests Used.	*Reliability of Results.*
(1) Form board (replacing blocks where cut from board) (2) Form board (akin to zigzag puzzle) (3) Strength of grip	(1) Compared with later acquired proficiency R = +0·52. (2) Compared with later acquired proficiency R = +0·72. (3) Compared with later acquired proficiency R = +·034; but, on adult men assemblers: (1) R = +0·18. (2) R = +0·56. (3) R = +0·29.
(1) Logical memory (2), (4) Examination (3) Directions test, finding specified word in dictionaries (5) General ability test	—
Tests for combined technique and intelligence:	—
(1) Woodworth and Wells' hand directions test and analogies test (2) Motor steadiness test (3) Simple calculations, card sorting, and substitutions	
(1) Checking errors in addition and subtraction	Accuracy in test and clerical grade, R = +0·50.
(2) Checking errors of spelling in interesting text	Speed in test and clerical grade, R = +0·42.
(3) Cancellation test	Schooling and clerical grade, R = +0·47.
(4) Substitution test	Age and clerical grade, R = +0·35.
(5) Alphabeting test	Accuracy + speed combined with clerical grade, R = +0·31.
(6) Extracting information from complex matter	Schooling + age combined with clerical grade, R = +0·52.
(7) Arithmetic test	Accuracy + schooling + age combined with clerical grade, R = +0·64.
(8) Matching proverbs	Accuracy+speed+schooling + age combined with clerical grade, R = +0·67.

QUALIFICATIONS FOUND

Occupation.	*Tests Due to—*	*Natural Abilities.*	*Attainments.*
Clerical (typewriting)	Thorndike for Metro. Life Insurance Co.	Rapid visual comprehension. Large immediate memory span Quick motor reaction Ability to withstand monotony	Proper knowledge of typewriting and shorthand
Clerical (typewriting)	J. M. Lahy (1905)	(1) Touch sensibility (2) Muscular sensibility (3) Muscular (hands) symmetry (4) Immediate memory span	—
Clerical (typewriting after lessons)	H. C. Link (on 22 typists and 400 candidates)	—	Typewriting and spelling
Clerical (typewriting on beginners)	H. C. Link (on 22 typists and 400 candidates)	—	Grammar, spelling, and writing
Clerical (typewriting and stenography)	H. W. Rogers in Columbia University	Rapidity in reproducing acquired associations	(Such as is necessary for abilities)
Clerical (filing)	H. C. Link	Capacity for mental analysis	—
Clerical (calculating machine work)	H. C. Link	—	Arithmetic, comptometry substitution
Gauging	H. C. Link	Speed of movement and endurance	—
Inspecting bearing balls for faults	S. E. Thompson	Quick reaction time Industry	—
Inspecting cartridges for faults	H. C. Link	Good eyesight, keen visual determination, quick reaction time, accuracy of movement, steadiness of attention	—
Heavy muscular work	F. W. Taylor (1911)	"Stupid and phlegmatic as an ox" (physical strength)	—

TO BE IMPORTANT—*Continued.*

Tests Used.	*Reliability of Results.*
—	—
(1), (2) Weight-lifting with myæsthesiometer (3) Dynamometer (4) Concrete phrases	Efficiency compared with: (1) R = +0·58 (2) R = +0·58 (3) R = +0·68 (4) R = +0·60 } Calculated by Muscio.
Actual typing test Spelling test Substitution test Traube completion test Grammar correcting Spelling test Dictation and transcription test	—
(1) Opposites (2) Verb object (3) Colour naming (4) Hand directions (5) Number group checking (6) Form substitution Filing test	(1) + (4) + (6) combined with ability in stenography, R = +0·63. (2) + (3) + (5) combined with ability in typing, R = +0·63.
Mental arithmetic test Actual test in comptometry Substitution test	—
Speed of tapping with Veeder counter	Compared with output R = +0·52.
Reaction time test	35 girls did work previously done by 120 in less time, but improvement not due to better selection alone.
(1) Card sorting (2) Cancellation (3) Number group checking (4) Accuracy of movement	(1) Compared with ability R = +0·56. (2) ,, ,, ,, R = +0·63. (3) ,, ,, ,, R = +0·72. (4) ,, ,, ,, R = +0·38.
Motion study and fatigue investigation	Great increase in work done.

QUALIFICATIONS FOUND

Occupation.	*Tests Due to—*	*Natural Abilities.*	*Attainments.*
Machine stitching	—	—	—
Printing	O. Lipman (Berlin, 1917)	(2) Intelligence (3) Motorskill combined with memory span (4) Normal immediate memory span (5) Typing from MS.	(1) Knowledge
Printing	Brussels, 1921 (Vocational Bureau)	Spatial memory Ability to work standing Strong sense of order and arrangement Initiative	Good primary education
Salesmanship	—	General high level of intelligence	—
Telegraphy	E. S. Jones for Telegraph Boys' Continuation School, Cincinnati	—	—
Wireless telegraphy	O. Lipman	Auditory sensitiveness to tones of frequency 500 to 1,000. Low differential threshold for pitch and intensity. Sense of rhythms and ability to recognise them. Intelligence which can fill up gaps. Non-distractibility of attention	Analysis of desirable qualities only. Lipman draws attention to different factors involved in sending and receiving
Wireless telegraphy	L. L. Thurstone (men between 21 and 31 years)	—	—

TO BE IMPORTANT—*Continued.*

Tests Used.	*Reliability of Results.*
—	—
(1) Spelling and punctuation test (2) Completion test (3) Simplified compositor's case (4) Copying a sentence (3 and 4 measured by number of times subject looked at sentence) (5) Special fitness for keyboard machines	Correspondence was found between combined results of five tests and opinion of supervisor after six weeks' work.
—	—
Intelligence tests	Extensively used in U.S.A.
(1) Oppositions test (2) Completion test (3) Immediate memory (4) For series of digits	All combined with efficiency, $R = +0{\cdot}76$. All combined with teachers' initial opinion (teacher A, $R = +0{\cdot}61$; teacher B, $R = +0{\cdot}79$); with opinion after eight months' training (teacher A, $R = -0{\cdot}81$; teacher B, $R = -0{\cdot}76$).
(1) Reproduction of different rhythms (2) Opposites test (3) Analogies test (4) Directions test (5) Completion test (6) Spelling test (7) Arithmetic test (8) Sentence test	(1) Compared with sending speed after 100 hours' practice, $R = +0{\cdot}48$. (2) Compared with sending speed after 100 hours' practice, $R = +0{\cdot}42$. (1) – (8) combined, $R = +0{\cdot}53$.

QUALIFICATIONS FOUND

Occupation.	*Tests Due to—*	*Natural Abilities.*	*Attainments.*
Telephone operator	Munsterberg for telephone companies	Abilities needed for tests used	—
Telephone operator	Fontègne and Solani (Geneva Telephone Exchange)	Abilities needed for tests used	—
Salesmanship	E. Orchrin in a New York Departmental Store	Intelligence	—
Tool-making (after four weeks' learning)	H. C. Link	Proficiency in tests used	—
Tram drivers	Munsterberg H. Sachs W. Stern	Have evolved tests consisting of a laboratory reproduction of the essential abilities required for street car driving. Performances in these tests have been found to correspond, more or less, with actual proficiency	—

TO BE IMPORTANT—*Continued.*

Tests Used.	*Reliability of Results.*
(1) Immediate memory span (digits) (2) Calculation (3) Logical memory (4) Spatial judgment (5) Rapidity of movement (6) Card-sorting test (7) Accuracy of movement test (8) Speed of association test	Satisfactory results.
(1) Immediate memory (2) Serial memory (3) Attention	(1) Compared with ability as judged by manager, R = +0·466. (2) Compared with ability as judged by manager, R = +0·421. (3) Compared with ability as judged by mangaer, R = +0·458.
(1) Opposites (2) Mixed relations (3) Re-arrangement of animals (4) Number group checking (5) Cancellation (6) Hand directions	Teachers' opinion after six weeks compared with: (1) R = +0·65. (2) R = +0·50. (3) R = +0·45. (4) R = +0·43. (5) R = +0·41. (6) R = +0·41.
(1) Stanquise mechanical test (2) Cube construction test (3) Large form board test	Proficiency gauge by foreman compared with: (1) R = +0·84. (2) R = +0·75. (3) R = +0·81. (1) + (2) + (3) R = +0·90. After four days' work, R = +0·65.

APPENDIX III

PARTICULARS OF COMMON TRADES

In compiling the following trade particulars those trades have been selected which feature most prominently in the returns of typical employment exchanges. Where, however, a trade is very localised—for instance, the china industries of the Potteries, or the jute textile manufacture centring about Dundee—any material mention of it has been omitted. Working on these lines may be assumed to give, so far as is possible within a limited space, those trades with which helpers will find themselves most concerned.

The more general aspects of English Law as it affects the adolescent have been dealt with in Chapter VI. and Appendix I., and references to these will be found at the end of many trade descriptions. Where it has been considered desirable, special reference to legal requirements has been made under trade headings in this Appendix.

No attempt has been made to give more than a general idea as to wages for the reason that they may be expected to fluctuate for some time to come, and that any figures would therefore soon become inaccurate.

Where some proved method of vocational selection has been used, a brief reference to its nature and degree of reliability (see p. 172) has been included in Appendix II. "V.S." at the end of a trade description denotes reference to that trade in Appendix II.

Modern manufacturing conditions have caused very considerable overlapping of various trades, and much subdivision of trades into sections. Cross references between different trade headings have therefore been given, and readers are advised to follow a trade from heading to heading by means of these.

The letters "T.B." indicate that a Trade Board exists for the trade in question.

Acting.—The profession is badly overcrowded, and unless there is a prospect of development of unusual ability, would-be entrants are advised to reconsider the choice of a career. For the legitimate stage the best beginning is to become a pupil in a repertory or stock company, although it is probable that no wages will be paid for a considerable time. For light comedy and musical plays the chorus is usually the only mode of entry. Those with singing ability desirous of performing in opera may either join the chorus of a touring company, or become pupils, sometimes with a premium, in one of these companies. Care should be exercised that the manager with whom a contract is signed conforms to the regulations of the Actors' Association, or the Variety Artists' Federation.

Legal Requirements.—(1) No boy under fourteen, or girl under sixteen, may perform in any way for profit in a public place, other than one licensed for public entertainment or the sale of intoxicating liquors, between the hours of 9 p.m. and 6 a.m., or (2) at any time if the child is under eleven; (3) no young person under sixteen may be trained as an acrobat, contortionist, circus performer, or for other dangerous performance or exhibition. This does not hold where the performance is for charity or school, so long as it is to take place in other than the above premises, or in such premises when the written consent of two justices is obtained. The hours under (1) may be altered by bye-law by a local authority. (2) and (3) shall not apply where a

licence has been granted under the Act. Licences may be issued by a petty sessional court, or in Scotland by a School Board, for children over ten when the court or board is satisfied that its granting is in the child's interest. Licences must be issued in the case of touring companies for each place visited, and no licence may exempt from the provisions of the Elementary Education Acts.

Aerated Water Bottling.—Girls enter at fourteen, and soon learn the trade. It requires little skill, and they may remain at it as women. Usually attracts a rough class of girl. (T.B.)

Legal Requirements.—Factory and Workshops Act, 1901. Is a certified dangerous process. See p. 162.

Agriculture.—It is difficult to give any standard conditions with regard to agricultural work; the conditions vary in each area. It is usually possible for a Care Committee to have knowledge of a few farmers and others who are willing to employ town youths.

Farming.—There is a large scope for boys to learn milking and other farm jobs, and to assist with a milk round. The life is healthy, but offers little future beyond that of a farm labourer. The best boys may use it as a good training prior to emigration. Places are best found through the local press.

See also Emigration, Gardening, and Market Gardening.

Legal Requirements.—Agricultural Gangs Act, 1867:

(1) No females shall be employed in the same agricultural gangs as males.

(2) No female shall be employed in any gang under a male gangmaster unless a female licensed to act as a gangmaster shall also be present with the gang. Licences must be issued by at least two justices.

Air Force.—Boys between fifteen and sixteen and a half years of age are admitted to a three years' course of training as Boy Mechanics, and after satisfactory completion of the course are eligible for eventual pro-

motion to commissioned rank. A minimum of educational attainment is insisted upon. There are several modes of entry. Boys may be nominated by education authorities and certain schools, and after nomination be subject to an examination. They may be nominated by the Air Council on account of their fathers' service in H.M. Forces, or they may sit for an open examination held each November. In each case candidates are required to pass a strict medical examination, and must reach a definite height.

On entry boys will be provided with a full kit, and are attested for twelve years: ten years with the Air Force, and two with the reserve. The qualifying period of service to qualify for pension is at present twenty-four years. Boys are granted four weeks' leave in the summer, and two weeks in the winter. Boys in training are thoroughly cared for in all respects, and the training is both technical and general.

The regulations are subject to alteration, but up to date information is available at any recruiting office.

Architecture.—The prospect of an elementary school boy becoming an architect is almost nil. He may, however, if he has very strong leanings towards drawing, become an architect's draughtsman at a very fair wage. He would begin by entering an architect's office as an ordinary office boy, and would gradually pick up the elements of drawing. Attendance at classes in architectural drawing and the theory of building is essential.

Armature Winding.—Girls do most of this work. It is a good light trade, and working conditions are, as a rule, good. Girls take some time to learn the work properly, but then command a good wage. They must have very neat fingers, be quick in their work, and not liable to scamp it. They remain at the work as women.

See Electrical Engineering.

Army.—Entry into the Regular Army as a boy for training in a trade can only be obtained by qualifying

at a competitive entrance examination, which is held three times a year in various centres. Candidates must be between the ages of fourteen and fifteen and four months on the date of enlistment. The examination is in Arithmetic, English, and General Knowledge.

Successful candidates will be enlisted for a term of twelve years from the date on which a boy reaches the age of eighteen.

In the case of boys selected for training as artificers in the Royal Artillery, and as Armourers in the Royal Ordnance Corps, the whole period of twelve years will be with the Colours. In the case of other boys, eight years will be served with the Colours and four years in the Army Reserve. Training covers about three years.

Boys are also enlisted as Drummers, etc. Full details of qualification and conditions of service may be obtained from any recruiting office.

Artificial Flower Making.—The most expensive and the cheapest flowers are imported. The English trade consists of the middle quality, both for home and colonial use. The grade of work and the skill required vary very much. In the better work much skill and ability to judge colour and design is essential, and as competition is fierce, only the best workers will get more than a poor wage, but these will obtain a high and steady rate of pay. Two years are usually taken for training. The theatrical section of the trade is of low grade, and badly paid. The work is light and suitable for delicate girls, but often in the busy seasons the hours are long.

Legal Requirements.—Factory and Workshops Act, 1901. No person under eighteen may take a meal in, or remain in during meal times, any room used for the manufacture of artificial flowers if and when dry dust or powder is used.

Artists.—Designing offers a good field for those who have *marked* artistic ability. The work may be prepared for in one of two ways: either the boy must learn a trade and, at the same time, study art, or he must

study art, and by some means or other become acquainted with the technique of a trade. Knowledge of both sides is essential. Trades which require designers are the making of wall-papers, textile materials, box covers, plastering, house decoration, and so on. It must be remembered that only those having exceptional artistic ability stand any chance of advancing far, and even then, without a higher education they are not likely to go beyond more or less routine designing.

See also Poster Painting.

Art Metal Working.—*Heavy work* is the making of gates, railings, chandeliers, etc. It is considered a good trade, and is well paid. Considerable artistic ability is required. Boys may enter at fourteen, and spend five years as learners at a small wage.

Light work is the making of small objects in brass, copper, and pewter. As most of this work is now done by machinery the scope for hand-workers is small. Boys with exceptional artistic ability, who can catch the public eye with new designs, will do well. There is a quantity of handwork in finishing machine-made work, and in doing the simpler processes while learning the trade under an artist.

Enamelling.—Legal requirements (see p. 162).

See Jewellery.

Baking.—A great deal of the work is now done by machinery. There is little opening for boys, because the Factory Act forbids their doing night work. Those who can gain entry start by running errands and cleaning up. At eighteen, if the boy shapes well, he may be promoted to the bakehouse and night work. The wages are not good, and the hours long. Owing to the danger of phthisis, only robust boys should consider this occupation, and then should take a lot of outdoor exercise.

See also Biscuit Making.

Legal Requirements.—Factory and Workshops Act, 1901, Section 38. Boys between fourteen and sixteen may only be employed in bakehouses between 5 a.m.

and 9 p.m., and then only for a total of seven hours, and if they are given proper intervals for sleep and rest.

Banking.—A minimum age of sixteen, and secondary school education are essential.

Basket Making.—Most of the work is the making of heavy laundry and post-office baskets. To some extent the work is undertaken by the blind. Boys, either learners or apprentices, take five years to become proficient. The work requires some skill, but little intelligence, and is liable to fluctuation and slack periods.

Biscuit Making.—The term includes cake making. Most shops employ three men, who undertake both baking and biscuit making. Machinery is little used, except in the large factories. The trade is unhealthy, phthisis being caused by dust, night work, and heat. Boys begin as errand boys, and about eighteen are employed partly in the bakehouse and partly on outside work, till they reach about twenty-one. Hours are long and wages not very good.

See also Baking.

Blacksmithing.—See Smithing.

Blouse Making.—This is one of the largest branches of the wholesale clothing trade, and a great number of girls are absorbed. Women often design, cut out, and make up throughout. There is plenty of variety, and the trade is popular, reasonably healthy, and interesting. A natural liking for sewing is necessary, and it lacks the monotony of many of the sewing trades. In the larger factories the work is much more sectionalised, and monotony is unavoidable. (T.B.)

See also Dressmaking.

Boiler Making.—A distinct trade from engineering, and a good one. Boys are sometimes apprenticed, and all begin as heaters, then rivet holders, and finally become platers. The work is heavy and fatiguing, and there is a danger of deafness from the noise of hammering. Except for repair work the trade is very local, being mainly concentrated in shipbuilding and engineering areas.

Bolt and Nut Making.—All this work is done by automatic and semi-automatic machines. The work is only unskilled and semi-skilled. Boys enter at fourteen, but as they can do the work as well as men, they are likely to be dismissed as soon as they require men's wages.

Bookbinding.—Bookbinding is roughly divided into "Publishers' Binding" and "Stationers' Binding," each having its own centres about the country. In either case the processes are divided into "forwarding" and "finishing," the latter being the most skilled. Forwarding consists of: trimming, or cutting the edges of the book in a "guillotine"; and gluing the backs to hold the sheets together. Girls are sometimes employed, but are discouraged by the Trade Union.

Rounding—rounding the back by hammering or in a special machine.

Backing or Nipping—groving each side of the round back so that the boards of the cover will lie flat. This is sometimes done with the last operation in the same machine.

Lining-up, or reinforcing the back with cloth or paper.

Case-making, or cutting out board and leather to make the cover.

(The above processes are carried out by men, and those mentioned below under "forwarding" by women and girls.)

Folding the sheets from the printer so that the pages will be in numerical order. In cheaper class work this is machine-done. The folded sheets are known as "sections."

Following on this process are many different ones, depending on the class of work, before the sections are finally inserted in the cover.

In "finishing," the chief process is lettering the cover, either by hand or machine. In either case highly skilled workers are necessary.

Entry.—A seven years' apprenticeship is the rule, and a boy is entered for forwarding or finishing, but

never both. The proportion of apprentices to Society men is regulated by the Trade Union.

Wages for skilled workers are good, and employment regular.

Conditions are good and healthy, and few accidents. Good prospects for both sexes.

Qualifications required are manual skill, good eyesight, and average strength. Artistic sense required for finishing.

There are special evening classes in most large centres.

Boot and Shoe Making.—The great part of boot making is carried out in factories, although some home work still exists. The cutting out of the soles and uppers and the heavier machining is done by men; the lighter work by women. There is no apprenticeship, and learning takes from two years upwards. When competent the wages are fairly good, but the trade is susceptible to seasonal fluctuations.

Upper fitting is skilled for the higher class work, but in cheap work is often badly done and only semi-skilled. It is extensively carried out by women and girls. Girls, if they wish to become competent, should take care to learn fitting and closing of uppers.

Upper stitching is mainly done by machine. Where power is used the work is not heavy, but treadle machines are beyond the physical ability of girls of fourteen.

Cutting of soles and fitting them to the uppers is a man's trade in all but the light shoe sections. It offers good prospects. (T.B.)

Boring.—See Mechanic.

Brass and Bronze Working—*Machine-Tool Workers.*—Most of this work is unskilled or semi-skilled, and is common to all branches of the brass trade. Workers drift from branch to branch according to their respective prosperity.

The chief types of machine used are: (1) Milling and Shaping. Milling machines remove superfluous metal

with a revolving cutter, while shaping machines make use of a tool moving backwards and forwards in the manner of a plane. Boys usually begin on these machines, and if the monotony does not drive them to other trades, are promoted to turning after about a year, and later to screwing. (2) Stamping. A weight is raised, either by foot pressure or by power, and falls so that sheet metal is forced between the specially shaped bottom of the weight and the similarly shaped bed on to which it falls. Thus, the metal is either pressed into the required shape, or, if cutting tools are used, blanks of a desired shape are cut from the sheet. In forming the metal into a shape, it is common to only partially reach the shape with one set of dies, and to soften ("anneal") it before being more nearly shaped in another set of dies. The work needs some skill, and considerable strength. (3) Pressing. Here, instead of a falling weight being used, the two dies are pressed together by steady pressure. This is either done by means of the upper dies being at the lower extremity of a screwed vertical bar revolving, and at the same time descending, under the influence of weights attached to it, or by the upper die being forced down by high-pressure water or steam, or again (for lighter power-driven work), by means of the upper die being attached to a revolving crank. Pressing is usually done by women and girls, and is paid above the average. Women do not, however, seem to remain in the trade above the age of twenty-five or so. It is general for girls to start on soldering or drilling, and to be moved to a press at fifteen or sixteen. (4) Capstan Lathes. These lathes are so constructed as to repeat a turning operation time after time with little attention. The work is unskilled, and attracts a low class of boy, who, as a rule, are not retained after seventeen. Girls are started at about sixteen, and employed as women. Their wages are good.

Finishing.—Brass finishing consists of four processes: (1) Dressing is the treating of rough castings by filing

or other means. Boys learn this in a few months, and if intelligent have a good chance of promotion to the machine shop. Another method is by means of emery wheels, mainly done by adults. (2) Turning. The amount of skill required varies; screwing and inside turning are the hardest. Men do the best work, but many women are employed. (3) Burnishing. May be either "hand" or "lathe" burnishing, but is little used now. Polishing is the more common method, and consists of rubbing the metal article with a hand mop or one revolving in a lathe, and which is treated with some polishing composition. Girls and women are almost exclusively employed. The trade is not very healthy, in spite of legal requirements to remove particles of metal by suction fans: workers are liable to phthisis, chronic bronchitis, and intestinal trouble. (4) Lacquering. This consists of painting the finished article with varnish. Girls have good prospects of becoming skilled workers with a good wage. Owing to the dry, hot atmosphere, and the smell of the lacquer, a good constitution is desirable.

See also Mechanic.

Brass Casting and Moulding—*Pattern Making.*—This consists of making models of wood, metal, plaster of Paris, etc., from which sand moulds are formed for the casting of brass objects. The present tendency is to subdivide the trade according to the material worked with. There is, however, danger of unemployment if only one branch is learnt. Formal training is rare in this, as in other sections of the brass trade; a boy is left to pick it up, and apprenticeship is almost unknown. Wages are good. The trade is healthy and free from accidents. Ability and skill of a high order are required, together with plenty of grit. Attendance at evening classes is very desirable.

See Pattern Making.

Core Making.—When a casting is to be hollow, such as are used for water-taps, a sand core is required to form a hollow centre in the metal. For small work

this is more often performed by girls, who are, as a rule, chosen because they have relatives in the shop. Hours are about forty-three per week, and wages at the beginning, though variable, are fairly good. Women are not allowed under Home Office regulations to enter the casting shop, and the trade is healthy. The work is done standing, and continuous, even movements of the hands are required; a certain amount of endurance is therefore necessary.

Casting and Moulding.—The moulder and his assistants melt broken ingots and scrap in pots called crucibles, weighing when full about 360 pounds. When the metal is melted to the right degree, it is poured into the mould made of sand. There are three methods of casting: sand casting, plate and machine casting, and strip casting. The processes involved are somewhat different, but too involved to be dealt with here.

See Moulding.

Intelligent youths have good prospects, but the less able class remain unskilled permanently. As almost all work is paid on piece rates, hours are very variable. Health conditions are rapidly improving as the result of inspection and legislation. High intelligence and strength are required if a boy is to become a skilled worker, otherwise no special qualifications are needed. Most large technical schools provide courses.

Bricklaying.—This term includes all kinds of brick construction with very varying degrees of skill. Apprentices should learn arch and gauge work, and cutting and rubbing mouldings, and should attend evening classes in the higher grades of work. Boys begin at sixteen or seventeen, and if the sons of journeymen are generally apprenticed. Otherwise they enter as labourers and pick up the rudiments of the trade. The work, especially in its higher branches, is well paid, healthy, and fairly regular.

Brickmaking.—Heavy work, requiring little skill.

Legal Requirements.—See p. 162.

Brushmaking.—Usually carried out by small firms who use ready prepared backs ("stocks") and hair or bristles. Males generally employed on hair and bristle brushes; females on vegetable fibre brushes.

"Mixers" mix various fibres by passing them through a comb for brushes having mixed fibres. Skilled occupation carried out by men; apprenticeship necessary.

"Pan-work" consists of fixing bundles of fibres into holes in the stocks by means of pitch.

"Boring" is the drilling of holes in the stock to receive the bundles of fibres. Heavy work, and, unless power is used, done by men.

"Drawing" is the drawing of fibre bundles into the holes by means of wire loops.

"Finishing" of bristles consists of evening the ends with shears. Finishing of stocks consists of sand-papering and staining the wood.

Entry.—Apprenticeship only usual for mixers. Other branches draw on juvenile labour in non-union shops.

Hair-brush trade wages about 25 per cent. higher.

Conditions.—Hours, fifty to fifty-three per week. Healthy, except mixing and dressing fibres, which is dirty. Very little anthrax has been known for many years. Generally considered a good trade. Very little labour-saving machinery is used. Is suitable for crippled or blind children.

Legal Requirements.—Factory and Workshops Act, 1901. The working of fibres or hair from China, Siberia, or Russia is prohibited for all persons under eighteen for fear of anthrax infection (see p. 162).

Cabinet Making.—Furniture, except the most expensive, is now machine-made. In large factories both machine minders and fitters can reach a good wage, but in some districts there is a great deal of home working at sweated rates. The higher class of work is well paid, and requires much skill and artistic ability. Boys do best who learn in a small shop doing good-class work. They will then gain experience in a wide variety

of work. Those working on machines should attend classes in working with hand-tools. A complete set of tools is expensive. The trade is inclined to be slack in summer.

Distinct branches of the furniture trade are:

Billiard Table Making.
Chair and Couch Frame Making.
French Polishing.
Upholstery.
Turning, Wood Sawing, Moulding.
Wood Carving for:
Furniture Trade.
Church Work.

See also Carpenter.

Cardboard Box Making.—Most cardboard boxes are made by machine, when a skilled mechanic keeps the machine in order, and it is fed with raw material by girls. The work is not very skilled, and not well paid. These machines work at a high speed, and steady nerves are essential. The more elaborate kinds of hand-made boxes require considerable skill in certain processes, notably the fixing of embossed paper covers and internal decorations. Neat fingers and clean working habits are necessary. Learning takes from three months to a year, when girls are put on piece-work. The trade is clean and, in proper shops, healthy. (T.B.)

Carpentering and Joining.—The carpenter as a rule erects work on the building, places floors, and so on, while the joiner works on the more difficult jobs at the builder's shop, though sometimes he has also to erect his own work. The introduction of wood-working machines has resulted in much of the making of doors, window frames, etc., being done by machinery, and the joiner now is often a machine minder. In placing a boy who intends to become a craftsman, care should be taken that he will not be put to machine minding and remain at it for ever. Boys should also learn both

carpentry and joinery, as they will then be reasonably sure of regular employment. Few firms take apprentices, and then often expect a premium; more take learners, who begin by helping the journeymen, and many take "yard boys," who pick up the trade as best they can. The best training is to be obtained with the small country firms. Good craftsmen can earn a high wage, and if both joiners and carpenters are unaffected by weather.

Physical strength, ability to draw, and manual dexterity are required. Boys are recommended to attend evening classes in woodwork and drawing.

See also Cabinet Making.

Carriage and Wagon Building, Painting, etc.—Includes the making of carriages, carts, vans, omnibuses, tramcars, etc. The trade is subdivided into a number of distinct trades. Broadly speaking, there is light and heavy work, the former requiring the more skill, and being the best paid.

Coachmaking (*Light Work*).—In the cheaper work the parts are machine-made to standard sizes, and then erected by hand. The better class of work is done throughout by hand, and great skill is required. Boys are usually apprenticed for about five years, and tools may cost up to £10. For wheel-making, although there is not so wide a variety of work as in body building, considerable skill is necessary. Apprenticeship is common, and a premium is often required. In all branches attendance at classes in machine drawing and cabinet making is desirable.

Van and Cart Building (*Heavy Work*).—Here again much of the work is done by machinery. Boys learning any section of the trade—viz., body building, wheel-making, smithing, or painting—will gain a knowledge of the other branches, but will not become skilled workers in more than one branch. Apprenticeship is common, and boys buy their tools.

Van and Coach Painting.—Varies very much in quality, and in the wages paid. Boys begin on quite

simple operations, but may, if they are good at lettering, eventually earn a very high wage.

See Motor Body Building.

Cash Desk.—Offers a good occupation to girls who are of thoroughly good character, good appearance, and quick at arithmetic. It is well paid, but the hours are sometimes long, and there is no very sure path for promotion as the girl becomes older.

Casting.—See Brass Casting and Engineering.

Chain Making.—Larger chains are forged with the aid of machines, and smaller ones are made entirely by hand. The work may be heavy, and it is usually a sweated industry. There is much home working. (T.B.)

Check Boy.—Boys entering warehouses often commence as check boys. They are later promoted to warehouse work proper.

See Warehouse.

Chemical Workers—*Wholesale Drug Manufacture.*—The work consists in the main of compounding drugs for sale to the retail chemists. Boys begin at bottle-washing, and girls at bottling, packing, and so on. Without considerable scientific training there is little future beyond that of the ordinary semi-skilled worker. The trade does, however, offer an interesting and regular employment.

Chemical Manufacture.—Here again the better jobs demand a scientific knowledge. The rank and file consist of general workers who may be mere labourers, or who may be entrusted with more responsible work where considerable intelligence, if little skill, is required, and mechanics in charge of the various machines and plant.

Chemist—*Dispensing.*—Girls are, as a rule, apprenticed for three years, and after this study for some nine months for the necessary examination by the Pharmaceutical Society. Intelligence, and a secondary school or its equivalent education, are required. Hours,

except in hospital dispensaries, are long—about sixty hours per week. Wages are average for girls of this class.

See also Chemical Work.

Clerical Work.—Boys and girls are not advised to take up clerical work unless they have a distinct taste for it and have reached a high standard at school. This work is overcrowded with an entirely unsuitable and under-educated personnel. It is absolutely necessary to continue general subjects, languages, and shorthand, typewriting, and filing at evening classes. Book-keeping is necessary for accountancy work. Girls who can afford it should attend a course at a commercial school prior to entering an office, otherwise their position will be very insecure. (V.S.)

Confectionery.—Men are only employed on the heavy and incidental work, and in sugar boiling and refining. The actual making of sweets is in the hands of women and girls. There are two distinct branches: chocolate making and sweet making. On the whole the trade is clean and healthy, and the more skilled workers are sure of good wages. The trade is very seasonal so far as sweet making is concerned, the summer being the slack time. Absolute personal cleanliness is of course essential. Regular training is infrequent, girls being left to pick up the trade as best they can. Considerable will is needed in many works if girls are to become really skilled workers, such as chocolate dippers. Most workers are on piece-work, and quick fingers are therefore needed. Able girls soon learn to earn good wages on piece-work. (T. B.)

Copper Smithing.—This consists mainly of wrought work. The heavier sections are beaten out by hand from sheet copper with a hammer on the anvil, the lighter and cheaper work is spun on a lathe or pressed, and the parts brazed together. The trade forms a section of the engineering and shipbuilding trades, and owing to Trade Union rules it is difficult to enter a boy who is not the son of a workman.

Corset Making—*Wholesale.*—The work is subdivided. The cutting-out is done by men either by machine or hand, the parts are then machined by three or four different sets of women. The bones and steels are inserted by hand, but eyeleting is machine done. The corsets are then starched, pressed, and packed by different sets of workers. Girls enter at fourteen, and learn under an adult worker for the first few months, during which they receive little or no wages. They are then put on piece-work, and earn decent wages. Ability to sew and to stand monotony are necessary, as is also personal cleanliness.

Retail.—A girl should be apprenticed to one of the many small firms doing this work. As she must be extremely good at sewing, she can generally fill in slack periods on underclothing work, or at making surgical belts, etc. Apprenticeship is usually for two years. Good workers command a big wage, especially cutters and fitters. (T.B.)

Dentistry—*Dental Mechanics.*—There is a good demand for skilled workers, who make up sets of artificial teeth. A boy is best apprenticed to a private dentist, when he works under a skilled man for from three to five years. Premiums are sometimes asked. He needs to have a good education, and to be steady and plodding. A knowledge of metallurgy is very useful.

Domestic Service.—Pre-war conditions of service have made it very difficult to persuade girls to enter this work. Great care should be exercised both in selecting suitable girls and suitable mistresses. Registry offices should only be used when their character is thoroughly known. In London the Marylebone Association for Befriending Young Servants, and in the Provinces the Girls' Friendly Society, and many Care Committees, are in the position to advise. Girls must, of course, be honest, clean, and tidy. There is a common fallacy that domestic service requires no intelligence, and is a convenient dumping ground for mental defectives.

Placing done on this assumption will soon cause mistresses to lose faith in a placing agency.

See Hotel Service and Hospital Service.

Draughtsmen.—Boys of the artisan class enter a drawing office at fourteen or sixteen, and for the first year or so do little but tracing and distributing "blue prints" to various parts of the works. By so doing they gain valuable experience of the construction of machine parts. After this, if they show promise, they are promoted to executing drawings of simple parts, and advance by degrees to the designing of more complicated structures. To advance above the ranks of tracers requires a considerable shop experience, and a good knowledge of mathematics and metallurgy. Without these qualifications they have no hope of promotion. Good draughtsmen command a comparatively high salary. Apprenticeship is common in most districts, but is dying out in others.

Dressmaking.—There is a considerable demand for really good workers, and girls who are inclined to sewing, and who work hard, are sure of regular employment. The usual wages are average, and show a tendency to improve. Cutters and fitters, as well as embroiderers and designers, command very good wages. Great personal application is necessary for advancement, and good eyesight is vital. Girls who are anæmic or neurotic, or whose hands tend to become moist, will not make good in this trade. In order to become first-class workers girls should see that they gain experience of all branches of the trade. Great personal cleanliness is essential. (T.B.)

See also Millinery, Pinafore Making, Underclothes Making, Blouse Making.

Drivers, Tram.—Usual mode of entry is adult recruits, either from another trade or from trolly boys. Entrants must be very steady and reliable. (V.S.)

Dyeing.—Conditions of entry vary very considerably in different districts. There are good prospects in the

trade, for skill is only obtainable after considerable experience has been gained. Hand dyeing is an unusually skilled trade.

Legal Requirements: Turkey Red Dyeing.—Factory and Workshops Act, 1901. Overtime may be worked till 4.30 p.m. on Saturdays, provided that the additional hours be computed in the limit to the total of the week's work.

Electrical Engineering.—See Engineering and Armature Winding.

Electricity Supply.—There are practically no openings for elementary school boys, except on the technical side.

See Electrical Engineers and Wiremen, and for the clerical staff see Clerical Work.

Electric Wiremen.—These men erect electrical installations; fix lamps, wires, motors, etc. It is a trade quite distinct from electrical engineering, and requires considerable manipulative skill and ability to read mechanical drawings. Apprenticeship is not common, and high premiums are never charged. There is a strong probability of a heavy demand for trained men for many years to come.

Cable work and the erection of power lines are separate sections, and should have a considerable future. Both necessitate very careful work, but are well worth while to the competent man.

Electro-Plating.—Electro-plating figures in trades such as silver goods making, motor and cycle making, brass working, and general engineering.

Before an article can be plated it must be prepared as follows: First the article is polished by being held against a rapidly revolving mop treated with various abrasives. This work is carried out by men and women, and if skilled they earn a good wage. The trade is unhealthy, and children with a liability to consumption should not be put to it. As a rule, a rough class of girl is employed in polishing.

After polishing the work is cleaned by scratch-brushing, with a machine or hand-brush of wire, on which a mixture of sour beer and size is used as a lubricant. The work is carried out by women, who are usually of a fairly good class, although, owing to its wet nature, the occupation is not popular.

In plating the object is to deposit a coating of copper, nickel, or silver on the surface of the goods. This is done by immersion in a chemical bath through which an electric current is passed, and no great skill is required. If, however, a worker wishes to take charge of the plant, make up solutions, and so on, considerable skill and electro-technical knowledge and attendance at a technical school are essential. The prospects are good, but adults who leave their firm have difficulty in finding other places.

Finishing is the giving of a final polish to the work, and is done by men and women. Boys and girls learn finishing by working through the other polishing processes first.

The final process is burnishing, when the work is gone over first with a blunt steel tool, lubricated with soap, then with bloodstone, and lastly with rouge or other material. Unlike the other processes, this does not remove metal, but closes up the pores in the metal, thus giving it a bright surface. Burnishing is always done by women, and is considered a good trade.

Entry.—Apprenticeship is uncommon, except in some plating departments.

Wages are moderate, and depend on the class of work and the skill of the worker.

Conditions with regard to health are good, provided that there is plenty of fresh air, and that care is taken in the manipulation of chemicals; otherwise bad hands and sores result. Hours are normal.

No special qualifications seem to be necessary, most of the processes being semi-skilled. Further education will always be useful, but the trade can only absorb a limited number of skilled platers.

Emigration.—Opportunities and qualifications vary from time to time and for various colonies. Full and up-to-date information can always be obtained from Juvenile Employment Bureaux. Great attention is always paid to questions of physique. The Salvation Army and a few other organisations have emigration schemes which can be relied on to give young emigrants the best chances for success.

Legal Requirements.—A child or young person who has been committed to the care of a person as the result of court proceedings under the Cruelty to Children Act, 1904, Section 6, may not emigrate during the period of his committal without the authority of the Secretary of State.

Engineering (Electrical).—Electrical Engineering is, in reality, mechanical engineering, with the added necessity of a knowledge of electricity. The work varies from that of the skilled craftsman to that of the labourer. The main requisites for progress are mechanical ability and a thorough knowledge of all elementary and some higher mathematics.

Engineering (Mechanical).—A boy who learns the trade thoroughly is known as an Engineer's Machinist, and is reasonably sure of a good trade for life. Good general intelligence, a strong body, and an interest in machinery are the qualities required.

Draughtsmen.—The first process in the making of a machine is to produce working drawings of all the parts. This is done by the draughtsmen. A good draughtsman will command a high wage, but to do this he needs a large technical knowledge of mathematics, designing, the use of materials, and the technique of the particular trade he is working for. Without these he will never do more than routine copying. Good eyesight, neatness, and high ability are essential.

Pattern Making.—See pp. 190, 226.

Founding.—See pp. 190, 206.

Smithing.—See p. 233.

Machining.—See p. 216.

Erecting.—This consists of assembling the parts of a machine, and requires considerable skill and initiative. Boys are sometimes apprenticed, with or without a premium, and are sometimes taken on as learners. Some of the work is very heavy. See p. 214.

Erecting.—See Mechanic.

Filing.—Metal filing forms a considerable part of most types of engineering. The skill required varies considerably with the work in hand, but except in its highest grades, such as gun-breech making and fitting, offers little scope for the adult worker. Boys entering engineering shops often commence at rough filing, and are later promoted to other and better work.

See Mechanic, also Indexing (Clerical).

Food Manufacture.—Very few processes in the manufacture of food products require great skill or high mental ability. The most important requirements are perfect cleanliness and, in many processes, neat fingers. In selecting suitable girls, great attention should be paid to the condition of their hair, and to the cleanliness of their homes. Most food factories require girls to wear frequent clean changes of overalls. The majority of processes tend to monotony. On the whole wages are fairly good, and girls soon learn enough to obtain these wages on piece-work.

French Polishing.—This consists in giving a polish to all kinds of furniture. In the better work much skill is required to obtain the right degree of polish all over an object. Manual skill is essential, although much mentality is not needed. Previously a man's trade, it is now mainly in the hands of women and girls. Girls enter on leaving school, and are taken on as learners; the time taken to become proficient depends entirely on the individual worker. The wages are fair, and the trade popular. Conditions of work vary with the factory, and care should be taken when placing girls that the conditions under which they work, and the moral atmosphere of the shop, are known. The amount

of work in an employer's hands is very liable to periodic fluctuations.

Gardening.—Boys of fourteen may often enter service at a private house, where they will learn gardening under the gardener or the master, and will devote some time to cleaning knives, boots, etc. The prospects are either to become gardeners or domestic servants. Advertising in local papers is the best means of securing work.

See also Market Gardening and Farming.

Gas Service.—There is very little employment for boys, most of the workers being recruited at a later age.

Glass Working.—Most glass articles are made by various processes performed on the melted material. Bottles and other round objects are formed by dipping a metal tube into a pot of molten glass and expanding the blob of glass collected on the end of the tube by blowing into it, either rolling the mass on a flat table, or expanding it inside a metal mould. Sheet glass is made by rotating or rolling a mass of molten material on a flat metal table.

The work is necessarily performed at a high temperature, and with a corresponding strong glare. It is therefore desirable that workers should be robust and have good eyesight. Workers are liable to bronchitis, consumption, rheumatism, and gout, but notwithstanding this, usually live to an old age.

Boys are entered at fourteen and upwards, and are often bound by a verbal agreement. The prospects are good, but many lads, owing to the monotony of the first years, leave this trade for others. Six-hours shifts are common.

Glass cutting is a good trade, having fairly steady employment and good prospects, especially to the better workers. There is danger of lead poisoning from the putty powder used in marking out.

The same applies to glass etching and printing, though care should be taken to avoid burns and injuries to the nose caused by the acid used.

Legal Requirements.—See p. 162.

Glazing.—Building glazing is as a rule done by painters, and little skill is required. Lead glazing of stained glass is a trade in itself, requiring some skill when working on the more difficult designs, but it is poorly paid. Boys begin by running errands, and work themselves up. This is a trade often taught at industrial schools.

Grinding.—Grinding in the metal industries generally consists of one of three processes: removing superfluous metal from castings, sharpening cutting tools, or accurately finishing turned parts of machinery in a special machine. In all three a rapidly revolving emery wheel is used. The first process is a rough one not requiring much skill, and unless proper ventilating fans are used, the dust that arises causes ill-health. The second is a part of tool making (see Tool Making), and is more skilled. The third is a highly skilled occupation, and commands good wages, which the others do not. Boys of fourteen are often employed on rough grinding, but are not preparing for any trade, and are liable to be turned off at about seventeen.

Gun Making.—Apart from munitions of war, this trade is mainly confined to the making of sporting guns. There is a considerable demand for skilled men, who command high wages on account of the high degree of craftsmanship required.

The most important workers in the trade are:

Barrel welders, who weld up the rough tube. Most tubes are, however, imported.

Barrel turners and grinders turn and grind the rough tube.

Filers file, cut, and braze the tubes into finished barrels.

Stampers and forgers make the rough parts for action and limbs.

Action filers finish the parts of the action, and fit them to the barrel.

Lock filers finish the lock parts. This is mainly done in the Black Country.

Furniture filers file and fit the triggers, guards, etc.

Stockers fit the rough wooden stock to the action. Sometimes these men also fit the furniture to the stock.

Finishers give the finishing touches to the wooden parts.

Chequerers cut the cross grooves on the stock and fore-end to prevent slipping.

There are also tool makers, engravers, freers, viewers.

Apprenticeship is rare; boys are usually started on errands, and gradually put on to bench and lathe work, when they become "learners." Training takes from three to five years, but as a rule much is left to the lad's initiative.

The skilled men, however, only number some 5 per cent. of the total workers.

Conditions are healthy and free from accidents.

Qualifications.—Especially for action and barrel filing, strong well-built boys are essential. It is of importance that boys should first work for a month on trial, and that after that they should insist on learning more than one section of the trade.

Hairdressing—*Men's.*—Many young boys are employed as lather boys, but do not learn shaving, and while they work long hours for very low wages, they are getting no further. Barbers often send boys to poorer districts to learn the trade, and occasionally apprentice them, but there is no regular method of training. The trade is fairly healthy in good shops and in seaside districts. The moral conditions in many shops need careful investigation. Skilled workers depend to a great extent on gratuities, and therefore the district has a great bearing on the money earned.

Ladies'.—It is usual for girls to begin on wig-making, as they leave school too young to be employed on saloon work. On entering the saloon they generally learn the business by practising on one another, and by watching the older hands. An apprenticeship of from two to

five years is usual, and wages for trained hands are very good.

Legal Requirements.—Employment often forbidden under a certain age by bye-law.

Hollow Ware Making.—(T.B.) See Sheet Metal Workers.

Legal Requirements (Tinning).—See p. 162

Hospital Service—*Domestics.*—Girls are taken on as ordinary domestic servants, but girls of fourteen are too young to commence training as professional nurses.

See Domestic Service.

Hotel Service.—Girls can commence work as messengers or domestics, and may gradually advance through the hotel organisation. The initial wages are small, and will eventually become those of either domestics or waitresses. A certain amount is earned in gratuities. Only very steady girls are advised to enter, and then care should be taken in selecting the hotel, and in keeping an eye on the girls' progress. Boys may enter as messengers, lift boys, and utility boys in the kitchen, and with good work will become menservants or cooks. Both of these command a considerable remuneration. Unless a boy is determined to get on, hotel service is apt to be a blind alley.

See also Domestic Service.

Indexing—*Filing.*—Large offices sometimes employ girls on nothing but filing and indexing. The work requires intelligence, but is monotonous, and if the girl is not determined to get on, and to learn other branches of office work, she is apt to fail to progress. Wages are about the same as for other office work of a routine nature.

Iron Founding.—See Brass Casting, but all work is of a heavier nature in iron work. There are few openings for boys, except as core makers. Skilled moulders draw good wages.

Iron and Steel Working.—See Engineering, Mechanic, etc.

Legal Requirements.—Factory and Workshops Act, 1901. Workshops used for the making of file cutting, iron and steel cables, chains, anchors, grapnels, and cart gear may be placed by the Home Secretary on the same footing as factories for the purpose of certificates of fitness (see p. 160).

Jam Making.—The trade is seasonal, and in most sections not very well paid. Much of the work is almost of a casual nature, but such operations as boiling require considerable judgment. There are frequent chances of placing girls temporarily on fruit picking. Use can be made of this in securing country air for delicate girls, although the hours are long and the work fatiguing.

Jewellery.—Manufacture is in the main carried on in small workshops, but the number of large firms is on the increase, mainly in the cheaper lines. The chief divisions are: Refining, Stamping, Piercing, Polishing, Burnishing, Gilding, Engraving, Chasing, Mounting and Setting, Enamelling, Plating, Diamond Cutting, and Gem Cutting. These branches occur in the making of various articles. In chain and chain bracelet making the metal is rolled and drawn into fine wire, or, when it is to have an iron core, the iron wire is drawn through a die along with a strip of gold, which the die presses round the core. The wire is then wound round metal rods or "spits," with a section the shape of the desired link, in a continuous spiral, which is then cut through so that each turn of the spiral is separated into a link. After gauging the links are made up into chain by pressing and then soldering the ends. Special forms of chain are usually made up by girls, who should take care to learn more than one variety. In making brooches, pendants, etc., the pieces are cut out by girls, and soldered together by men with boys or girls to assist. Polishing is done by women, and the work then goes to the mounter. Enamelling consists of stamping or engraving the desired pattern on the article, and then running in the enamel, consisting of a paste made with powdered soft glass; the whole piece is

then fired to harden the enamel. Imitation jewellery is made much in the same way, only of base metal covered with gold or silver, either by sweating or rolling it on. Artificial stones are usually imported.

Apprenticeship is the exception, as small employers are afraid of creating too many skilled men who may set up as rivals. Larger firms, on the other hand, feel a shortage of skilled men, and are often willing to apprentice. Young persons direct from school are always required.

Conditions of work are healthy; sitting most of the time. Seasonal slackness from July to September is common, but good workers are sure of regular employment. Bad time-keeping, moving from firm to firm, and attention to piece-rate earnings at the expense of learning a section of the trade, are frequently the cause of unemployment later in life.

Qualifications desirable are: Good eyesight, neat fingers, an aptitude for drawing, average intelligence, and in enamelling a good colour sense. In the main jewellery centres special evening school courses exist. Drawing, chemistry, and metallurgy are specially useful.

Laboratory Attendant.—It is sometimes possible to place boys as laboratory attendants in schools and colleges. They must be handy, have plenty of sense, and be keen on science. With steady work and attendance at classes, it is possible for a laboratory boy to become a qualified scientist. Wages for boys of sixteen upwards are quite good.

Lacquering.—See Brass Working.

Lamp Making.—Electric-lamp making consists of many branches, and both wages and working conditions vary from process to process. Some of the work is done with small gas jets which necessitate the entire absence of draughts, and a consequent stuffiness and heated atmosphere. Only strong girls should be employed on glass working jobs. Glass workers are the most skilled, and packers the least. Some of the wire work is skilled and well paid. Great skill with the

fingers, lightness of touch, and conscientious accuracy are required for all the work. Training varies with the work that a girl is learning; some of the processes are soon learnt, while others take a considerable time. The work is always carried out in factories where good conditions prevail.

Laundry.—With the exception of the packing and sorting departments the hours are long, and the atmosphere damp and heated, and physical strength is necessary. It is often possible to secure situations for deaf girls. Working conditions vary very much from laundry to laundry, especially with regard to the moral tone of the workers, which is frequently low. Initial wages are good, but adults do not command high wages, except in a few skilled sections of the trade. On the whole laundry work is popular. (T.B.)

Legal Requirements.—Factory and Workshops Act. A young person may not be employed more than twelve consecutive hours in any twenty-four, not more than sixty hours in the week, and not more than five hours without at least half an hour's rest.

Leather Working—*Fancy Work.*—Offers good prospects to girls with neat fingers and average intelligence. Although from a selling point of view it is a seasonal trade, employment is fairly regular. Beginners are put to "tying off," which is monotonous and apt to weary them before they are advanced enough to undertake the more interesting work. It is generally considered a good trade.

Saddle and Harness Making.—The trade has suffered from the increased use of motors. It is carried out sitting, and is suitable for cripples. All branches are quite distinct. Except in the cheaper work, saddle making is a skilled and well-paid job. One man makes a saddle throughout. The stuffing and covering of collars is very heavy work. A five years' apprenticeship is common, and premiums are sometimes asked.

Trunk, Portmanteau, and Bag Making.—Trunk and portmanteau making is skilled and well-paid work,

except where large numbers of articles are made on mass-production lines. In this case the work is so sectionalised that little skill is required. Dress baskets, fibre and wood trunks are poorly paid. Apprenticeship is still fairly common, although most workers start as learners. For the skilled sections five years may be required in learning. Bag making is now very sectionalised, and is on the whole badly paid.

Leather Dressing.—Most of the work is unskilled and in the hands of labourers.

See also Boot Making.

Library Work.—There is little scope for elementary school children. Secondary school girls often obtain work in Municipal Libraries, and if they sit for the proper examinations, may become qualified librarians.

Machine Minding.—See Mechanic.

Market Gardening.—This is probably the best training for a boy who wishes to become a general gardener. The work is healthy, but not too well paid. Many market gardeners will take boys to learn for two years or so, and if they come from a town, they will either board with the master or live in lodgings. He will earn nothing while a learner.

See Gardening and Farming.

Masons.—Masons cut and dress the stone for buildings. They are usually recruited from the country quarrying areas, and if competent command a good wage and regular employment. Physical strength is necessary, and learning takes from three to five years. The Trade Unions object to the promotion of labourers to masons proper. Evening classes are very desirable if a boy wishes to get on.

Mechanic.—Owing to the very great numbers of mechanics in the engineering trades, and the consequent frequency of entry into machine-working trades, the subject of the mechanic deserves fuller treatment than space permits for most trades. We cannot do better than quote from one of the excellent pamphlets issued by the Board of Trade on Birmingham industries:

TURNING AND FITTING.

Machine and Fitting Shops.

INTRODUCTION.

When a boy expresses his desire to enter the engineering trade, he really means that he wishes to become a skilled mechanic—for example, a turner or fitter. But not grasping that a large proportion of the work in the engineering trade is unskilled, he is liable instead to undertake work as a machinist or process worker. When he discovers that he is not carrying out his original intention of becoming a skilled worker, it is often too late to make a change; for he is unwilling to sacrifice the high wage he can earn where he is. To prevent a boy who is believed capable of becoming a skilled workman from making this false start, a definite understanding should be arranged with the foreman as to the nature of the work and training he will receive. This should be done even if it is not intended to apprentice him; unless some such understanding is come to at the first, the boy often becomes restless and wants to learn new processes before he has mastered the one upon which he may be engaged.

A boy wishing to become a turner should, after the usual period of errands, go direct to work on a small lathe, as in most shops it is difficult for a boy who has been operating a drilling or milling machine to be transferred to a lathe. For, unless a firm has a well-drawn-up scheme of training, the foreman of one section of a machine shop may be unwilling to allow a boy to be transferred from his section to another. It is important that a boy should learn how to work as many as possible of the machine tools, etc., that require skill. He should, however, not specialise on any one of these machines till he ceases to be an improver at the age of twenty-three or twenty-four. During his period of training he should endeavour to spend about two years in the fitting shops; this, however, is not always possible.

Although modern factory conditions make it difficult to attain, the object to be aimed at is the acquiring of a wide knowledge of turning so as to develop the greatest possible power of adaptability. Boys who are fired with this ambition are just as difficult to guide as those who only seek increase of wage.

If care is taken to place a boy with a firm having a good name for training first-class workmen, it should be impressed on him that, provided he behaves himself and shows ability, his foreman can be depended upon to look after his interests and to give him good advice.

In the fitting and erecting departments, each shop, and almost each bench, has a different stage of the work in hand. An understanding should be come to as to the method and rate of progress a boy is to make through these. If he can spend a period of his training on a lathe it will be to his advantage, but this is not usually possible except for apprentices.

On first entering a firm boys may act as errand boys for a period of from three to six months in either the office or works, or may go straight to the fitting bench, if they are to become fitters, or be put to operate a simple machine if they are to become turners. A period of errands is the most usual. Boys are apt to look upon this period as wasted time, and to feel that they are learning nothing. But the time can be very profitably employed in not only learning the way about the works, but in observing how the work is done in all the various departments. A boy who shows intelligence and civility as errand boy will soon be marked by a foreman as worthy of encouragement.

In the case of those who are to become turners, the period of errands is frequently followed by three or four months as assistant in the tool stores. Whilst here, a boy learns the names and uses of the various tools employed, and gets to know the different forms of cutting edges required for different metals, etc.

Turning.

On all lathes the article to be machined is rotated and the cutting tool held in a slide rest, which can be moved along the lathe bed by hand or by a screwed shaft.

There are two principal methods of teaching a boy how to turn metal on a lathe, both of which have their advantages. The first of these is that practised in large shops where the lathes are arranged in rows, with a charge hand over every two or three rows. These rows, and generally the lathes in them, are arranged in a graduated scale, each row and each lathe being employed on slightly larger or more advanced work than its neighbour. The first row or two consist of small lathes without any screw-cutting attachment. A boy will commence at one end of this row and slowly progress from lathe to lathe, and then from row to row. The second method, practised in small shops, is to place a small lathe in front of or beside a lathe worked by a skilled man, who can thus supervise and assist the boy under his charge.

In either case the boy will first learn to *centre* (*i.e.*, mount) small pieces of bar steel between the centres of the lathe, and to turn them up into bolts, simple spindles, etc. He will then learn how to mount work in a "chuck"—a form of vice mounted on the left-hand spindle. From this he will go on to mounting work on a "face plate" by means of bolts. A face plate is a flat metal disk which is mounted on the mandrel to which work can be clamped.

No two shops are alike in their method of training boys, but some form or other of the first method mentioned above, by which the learners are under the supervision of a charge hand, is the most usual. It is only in small works, undertaking a large variety of work, that a turner can in any way supervise the work of a learner.

Day-workers are always more willing than piece-workers to take trouble in giving help and instruction

to learners, as the time so spent does not represent any loss in wage to the individual concerned, as is the case with those engaged on piece-work. As a whole, skilled workmen are generally willing to assist learners; it is usually only the incompetent workman who, fearing competition and loss of employment, is apt to try to prevent the gaining of knowledge by learners.

Fitting and Erecting.

The first work given to boys in the fitting shop is rough filing, and chiselling off the "fraze" left on castings. A fraze is the jagged edge formed on castings by the molten metal flowing into the joints of the mould.

The first and most important thing a boy has to learn is how to file true and square. In order to acquire this skill of hand a boy should employ odd moments of spare time in filing up small pieces of steel into true squares of predetermined dimensions, and testing their accuracy by measuring them with a set square. The making of tools, such as spanners, callipers, set squares, etc., for his own use will aid him to gain skill of hand. Unless boys are conscientious in occupying their spare time in making these "foreigners," as they are called, they will get into trouble for neglecting their work. Much of the complaint by boys that they are kept on the same work for an excessive length of time is due to their own lack of zeal and intelligence for their work. A boy who slacks or plays the fool whenever the foreman is out of the way cannot expect promotion.

Method of Entry.—Most firms speak of the boys in the turning and fitting shops as apprentices, but the proportion of true apprentices in the trade is relatively very small. There are a few firms who insist on all boys in these departments of their works being apprenticed, whilst others only encourage a few of the most promising boys to become indentured. There is no doubt that apprentices are given a much better chance of becoming first-class skilled workmen than those

who are not bound in any way. Firms who have got a good name for training skilled workmen do not experience much difficulty in getting all the boys they require. Some firms have to keep a long waiting list of boys who desire to enter their works.

The proportion of apprentices and learners to adults varies considerably in the different works. Some firms employ hardly any boys, but the average proportion of those under eighteen years of age in large works is about 25 per cent. of the whole.

After the period of training there is a recognised improver stage till the age of twenty-three or twenty-four.

Health and Accidents.—Turning and fitting are very healthy occupations, and the percentage of accidents is below the normal. The Report of the Registrar-General on Occupational Mortality shows that engine fitters are by far the healthiest of the entire class of Metal Workers.

In the machine shops the only unhealthy occupation is that of dry-grinding on emery-wheels; the workers engaged on this process—employed like all those in dusty trades—are liable to phthisis.

On all lathes, except those on which high-speed steel (*i.e.*, very hard steel used for tool-making) is employed for cutting, the work being machined has to be abundantly supplied with lubricants—such as lard oil, or suds. Owing to neglect of individual workers, these lubricants are apt to be used after they have become rancid; this is contrary to the rule of all works, and is a frequent cause of blood poisoning.

Qualifications.—Good physique, sight, and intelligence and adaptability are essential for success.

Suggested Educational Courses.—Boys should be very strongly urged to attend the special set of courses arranged for turners and fitters at the technical school. This technical training is necessary in order to counteract the tendency in the highly organised works of the present day to turn out men who are only skilled in a very narrow range of work, and lack adaptability.

Boring.

When a hole has to be accurately machined through a great thickness of metal, or when two or more holes, some distance apart, are required to be in true alignment, a boring-bar is employed for cutting them.

A boring-bar consists of a steel shaft with various slots into which cutting tools can be wedged.

Work that is not too big to be done on a lathe can be bored out on this by a turner; big castings, however, that will not fit between the centres of an ordinary lathe have to be bored on specially constructed boring lathes. These are operated by men who, in large works, do nothing else but boring.

Borers are mainly recruited from the ranks of turners who have been induced to specialise in this work.

Boring is considered to be the most skilled machining operation next to turning. Men who are skilled both as turners and borers are scarce and are in great demand, as in many works a man who can do boring only cannot be kept fully occupied.

Planing.

The working surfaces of long castings, such as lathe beds, are machined on planers. There are many types of these machines, some being of vast proportions, but all are constructed on the same principle. The work to be machined is fastened to the bed of the machine, which travels backwards and forwards, and the cutting tools, or tool, are held stationary above the work.

With very few exceptions the machines can only cut when the bed is travelling in one direction, the return travel being idle.

Planing is not considered such skilled work as boring. Owing, however, to recent improvements in their design, an increasing range of work can be done by these machines, and skilled men are being required to operate them. The increasing use of the " ganging " principle has also enabled planers to be employed for a much

larger range of work than formerly. By ganging is meant the machining of a large number of parts in one operation; for instance, the webs of twenty-six motor-car cranks can be machined at a time.

Boys sometimes become planers by first working on a shaping machine. This does on a very small scale the same work as a planer, but on it the cutting tool travels backwards and forwards in a horizontal position while the work is held in a vice. It is largely used for cutting keys and feathers for holding gear-wheels in position on shafting.

From the shaper the boy may be transferred to a slotting machine. This is largely used for cutting key-ways in gear-wheels, etc. On a slotting machine the cutting tool works up and down in a vertical line, and the work is held on the bed below.

In a few cases boys serve a rough form of apprenticeship for a period of four years.

Milling.

Milling consists in dressing metallic surfaces by rotary cutters. These milling cutters are circular and have on their circumference numerous cutting edges, which may also be continued down each side. The cutter or cutters are mounted on a horizontal revolving shaft, and the work is either mounted in a vice or clamped direct to the slotted table of the machine. On the simplest type of machine, this table can only be moved backwards and forwards in a horizontal position, and the spindle on which the cutter is mounted cannot be adjusted. On a slightly more elaborate machine, known as a former, the milling cutter can be made to follow various curves by clamping a form to the table; this forces the cutter to mill out curves corresponding to those on the face of the form. The most elaborate type of miller is known as a universal milling machine, which can, as its name implies, be adapted to do a vast range of work.

Boys first start on a simple type of machine, and learn to cut such things as the castellations, or slots, for receiving cotter pins in castle nuts, etc., but by degrees they not only get on to more elaborate work, but learn to adjust their own tools, etc.

The best position the majority of youths can look forward to obtaining is that of tool setter. It is usual to have a tool setter to every six machines, but this proportion varies with the different firms. Tool setters have not only to adjust the machines for different work, but also to superintend the minders on the machines, as well as to operate machines themselves. The work of a tool setter is skilled, and good men can depend on steady employment.

Method of Entry.—Millers are mainly obtained by training boys, who are looked upon as learners until the age of eighteen. A certain proportion of adult shop labourers are promoted to this work, as well as ex-service men, and an intelligent man can rise to being a skilled tool setter or a universal miller.

The proportion of youths under eighteen years of age to adults varies in different classes of shops, but with good steam-engine and motor-car firms the proportion is usually 25 per cent. of the whole or slightly under.

Drilling.

Nowadays, most drilling operations only require a low grade of semi-skilled workers. This state of things follows from the universal introduction of special tools, known as "jigs," which are clamped on the work to be drilled, and contain holes fitted with hardened steel bushes for guiding the drill.

In the lowest grade of all is the operator of the multiple spindle or gang drilling machine. This machine may have from six to twenty-four drills; it is largely used for drilling rivet holes in plates and girders, and also for drilling and tapping nuts, etc.

Boys of fourteen years of age and over frequently

begin by operating a multiple spindle machine for tapping nuts—*i.e.*, cutting screw threads in nuts. The taps for this purpose are made with a long taper, so as to fit readily into the holes in the nuts. All the boy has to do is to feed the various spindles with nuts and to remove the nuts from the spindles when too many accumulate on the shaft. For this work it is usual to employ a six-spindle machine, each spindle being controlled by a separate hand lever.

As the taps have to be kept liberally fed with a stream of oil, the work is of a dirty nature.

The length of time a boy is kept on this type of machine depends on how he behaves and on how soon a vacancy occurs on a drilling machine. He frequently will spend a period during which he is partly employed as a rough driller or as a gang drill operator, as the occasion arises.

A large proportion of the boys change their employment at frequent intervals, and often finally become millers, grinders, etc., or enter the brass or cycle trade.

Method of Entry.—There is no regular method of entry for this occupation; any handy man about the shop may be promoted "off the floor" to be a driller. The work absorbs a number of ex-service men. Boys and youths can enter this section of the trade at any age, but in order to have the opportunity of learning the best class of work it is better to begin the work when young.

Machine Minders.

An increasing amount of repetition work is now done on automatic machines. Sets of tools for these machines are very costly, and the adjustment of the various cams, cutting tools, etc., necessary before a machine can be reset for making a new article takes a skilled man a considerable time. For this reason pure automatic machines can only be profitably employed on operations of long duration. They are frequently engaged from year's end to year's end in turning out the same article,

without change of tools, except for purposes of re-sharpening and adjustment.

Semi-automatic machines are employed on operations of short duration, whilst capstan-lathes are employed when the number of parts required at any one time is too small to pay for the cost of setting up a semi-automatic machine. Capstan-lathes are largely employed for machining small castings. The operator has to adjust the castings in the chuck and bring up the various tools by turning a hand-wheel.

The number of purely automatic machines that may be minded by one man is regulated by the Trade Union according to the number of operating tools in the turret-head of each machine—*e.g.*, one man may mind six machines which have each four operating tools and two cutting-off tools; he may not, however, mind more than two large size Herbert machines, which have from ten to fifteen tools, and even then he must have the help of an unskilled assistant.

Method of Entry.—As in many other semi-skilled occupations, boys usually start as machine minders at a later age than that at which they enter the skilled sections of the trade, often after having failed in other trades. Younger boys, however, are attracted to machine minding by the high initial wage. There is no age limit for starting this work for the first time. The work absorbs a number of ex-service men.

When a man is in charge of several machines it is usual for him to receive a small extra bonus for each additional machine.

Prospects.—Machine minding being an unskilled occupation, it attracts, for the most part, those youths who lack ambition or who have failed in other trades. Only a short time is required to gain the necessary experience, and there is small risk of failure.

There are very many grades of tool-setters, from the highly skilled man, required to set-up a Herbert machine, to the semi-skilled man, who can change over the tools on his own hand-operated capstan-lathe.

There is a steady demand for good tool-setters, and the supply is limited.

As in other operations which, for the most part, only require semi-skilled workers, and in which juveniles can earn a relatively high wage, boys are very apt to seek fresh employment at frequent intervals in order to obtain still higher pay. This frequent change of employment, so undermining in its effects, is also due in some measure to the monotonous nature of the work.

Mercantile Marine.—To the perfectly fit boy who likes the sea this offers a good profession. The conditions are not so good as in the Royal Navy, but the terms of entry are not so high. Boys who enter as apprentices stand a much better chance than those who enter as boy stewards, galley-boys, and so on. The work is hard and discipline strict, but in a good boat this will do no harm. Boys are advised to enter either through a training ship or direct under the help of the Shipping Federation, who take care that the boat chosen is a suitable one. Boys are admitted to training ships between fourteen and sixteen, and as apprentices between fifteen and seventeen and a half. Apprentices get a small wage for their three or four years' indenture, and then often receive a good behaviour gratuity. Some shipowners require a surety of £10.

There is little opening for boys on coasting vessels.

Fishing-boat work is very hard, and none but really solid boys should think of it. Apprenticeship till twenty-one is common, and no breaking of it is allowed. Boys begin by being generally useful and by doing the cooking.

See Royal Navy.

Messengers.—Messenger work has a strong appeal to boys who leave school. It leads nowhere, and boys, when they reach the age of seventeen, are almost invariably dismissed without any training for another occupation. Parents are strongly advised to keep their sons clear of this occupation, either under a private company or local or central government, except under the Post Office.

See Telegraphist.

Millinery.—Girls usually enter the trade as learners, although some firms apprentice a certain number of beginners. There are two distinct branches: the wholesale trade, where large numbers of hats are made from an expensive imported copy, and the retail trade, usually carried out by small firms, where the more expensive and less uniform hats are made. In the former there is a quantity of semi-skilled work, but, as with the whole of the retail branch, skill in working and ability to design and create are necessary for the higher-paid sections. Designers, cutters, and finishers can command a very good wage, but the usual run of wages is not high.

Girls usually enter direct from school at fourteen. The trade, except in some branches of the wholesale section, is very fluctuating, and slack seasons often occur.

Milling.—See Mechanic.

Milling, Flour.—The only openings are to become machine minders or warehouse boys.

Motor Body Building and Coach Building.—This trade may roughly be divided into: wood-workers, machine operatives, coach builders, coach painters, and coach trimmers.

Wood-working is mostly carried out by machine to the design of a master coach builder. It is semi-skilled work, except in the case of spindle-machine operators, who, with the aid of their machines, perform the more intricate cutting operations. Younger boys are not employed, as the machines are dangerous. Apart from mechanical danger the particles from sandpapering machines are liable to produce a fibrotic lung disease, and to render the worker susceptible to tuberculosis. Boys with weak lungs should not be put to this occupation. East Indian satinwood, satin walnut, and teak are apt to cause eruptions of the skin, while these woods, along with mahogany, irritate the eyes and nose. Though prospects of high wages are small, there is a reasonable assurance of regular employment.

Coach Smithing.—The main difference from general smithing is that the work is lighter, and that the coachsmith fits his own work. Boys enter at fourteen, and a verbal agreement is generally expected that they will remain till eighteen or nineteen, when it is usual to seek work in another factory. Wages and prospects are good. Coach smithing is a highly skilled trade.

Body Building.—This consists of fixing together the parts, which in modern works are of a standardised and uniform pattern. Boys enter at fourteen, and are usually apprenticed. Adult employment is fairly regular, but owing to the sectionalisation of the processes, is not as a rule very skilled. No very special qualifications seem necessary.

Coach Painting.—Apart from liners and finishers, this is unskilled work, and only these two types of worker are apprenticed. There is some danger of lead poisoning unless proper precautions are taken.

All juveniles, on entering the trade, should be given the following instructions: (1) to take special care to avoid raising dust; (2) to pay scrupulous attention to cleaning the hands, face, teeth, and clothing—always to clean the hands and nails with soap and nail-brush before eating any food; (3) to wear overalls—these should never be shaken, but should be washed at least once a week; (4) occasionally to use aperient medicine.

As lead cannot enter the system through the pores of the skin, lead poisoning can, in a great measure, be avoided by following these instructions.

Upholstering or "Trimming."—Boys enter at fourteen, and are usually apprenticed for seven years. The trade is clean and healthy, and offers fairly good prospects. Girls and women are employed in cutting out and otherwise preparing some of the material. They need to be strong and clean.

See Carriage Building and Painting.

Motor Driving.—Wages for van drivers are fairly good, and there is the prospect of regular employment and outdoor work. Private chauffeurs also usually

draw a good wage, when it is considered that they also obtain many perquisites. Taxi-cab driving is also well paid, when trade is good, but is liable to slack times and overcrowding. Boys may not drive a motor-car until they are seventeen. They soon learn the work, but should have a good knowledge of motors and repair work. They are advised to enter a garage at fourteen, and so obtain three years' experience of cars before learning to drive. Women do not as a rule make reliable drivers.

Motor Garage Work.—Boys enter at fourteen or over, and become general utility boys at low pay. They have, however, opportunity of learning about motors while helping the men, and if they attend evening classes in motor engineering should become skilled mechanics. Alternatively they may become drivers. Good intelligence, a fair amount of strength, and interest in motors are necessary for progress.

See Motor Driving.

Moulding.—Moulds are made of sand or loam which is pressed round the wooden patterns. The patterns are then removed, and their place is filled with molten metal which, on cooling, will assume the shape of the pattern. When a hollow casting is required a second block of sand is prepared separately, and placed in the main mould in such a way as to leave the required interior space in the finished casting. These blocks are known as "cores." Core making is now so subdivided that learners are apt to tire of performing one stereotyped operation, and so leave the trade. Moulding proper offers very good prospects, the more so as, in common with core making, many boys leave for other work after a short time at it. Probably this is due to the very dirty nature of the trade, although for a boy with grit it offers exceedingly good prospects. A high level of general intelligence and manual skill are required, and attendance at evening school is essential. Although scheduled as a dangerous trade, no special regulations have been introduced, and it would seem to be healthy. Good eyes are advisable.

See Brass Casting.

Musical Instrument Making.—String instruments are made by very skilled workers, who are usually recruited at an older age than that with which we are concerned.

Piano Tuning.—Boys must have a keen musical ear, but a knowledge of music is not necessary. They begin by doing simple jobs in the factory, and then learn most of the manufacturing processes, how to carry out small repairs, and to rough tune in the works. After a long period on trial they are apprenticed for from five to seven years, and then may work either on the inside staff or on a customers' round. The demand for good tuners is good, as are the wages. There is a demand for tuners on the Continent.

See Pianos, under Wood Working.

Navvying.—Requires strong physique, but little intelligence. No opening for boys—mainly recruited from those who began life in " blind-alley " occupations.

Painting and Decorating—*Plain Painting.*—This requires little skill, and recruits are drawn from all sources. A painter of this kind may paint in the summer and follow any other trade in the winter.

Decorating.—This includes such work as the painting of ceilings, decorating walls, and fresco work. It is a skilled trade, and good wages are obtained. Boys have to pass through a period of about five years as apprentices or learners. For the best work men must be real artists. Considerable artistic ability and attendance at an art school are necessary.

Paper Bag Making.—Paper bags are made both by machine and by hand. Where the former, the paper is supplied in rolls and is folded, pasted, and finished in one machine. When possible the bag is printed at the same time. Where for any reason the machine is unsuitable for the work in hand, the paper is first printed, and then folded over zinc sheets and pasted by hand.

Girls alone are employed, and generally enter the trade as assistants to older girls. Married women often set up as out-workers.

Wages are regulated by a Trade Board. Hours are rather long.

Pattern Making.—The making of patterns, or models from which sand moulds are made for the reception of molten metal in the manufacture of castings, is a skilled and well-paid trade. Boys enter as general utility boys, and later learn the use of simple wood-working tools. After about two years they begin on wood-working machines, and finally are entrusted with the making of complete wooden patterns. As a rule boys have to buy their own tools, which may be acquired gradually, and which cost a journeyman worker anything up to £30. Besides great skill, a wide technical knowledge of both wood-working and foundry practices is necessary. As the pattern shop is generally isolated from the foundry, it is important that boys should attend evening classes in moulding and casting, as well as in machine drawing. It is well for an improver to gain experience in several types of pattern making, but, of course, too frequent changes should be avoided.

See also Brass Casting.

Photography.—Girls are largely employed in printing, mounting, spotting, and retouching. The wages are about average, and employment regular. There is, however, a tendency to much overtime towards Christmas, and a good physique is required to stand these rush periods. The work is light, interesting, and healthy. There is usually some difficulty in obtaining situations for beginners, and about two years are required to become proficient.

Pinafore Making.—Most of the work is machine made. It has less variety than some other forms of sewing, and the work is usually of a cheaper quality. Wages are quite good, and working conditions vary from factory to factory. Girls enter as learners, and as soon as competent (after a few months) are put on to piecework.

Planing (Metal).—See Mechanic.

Plastering.—This is heavy work, and varies in the amount of skill required. Ordinary wall plastering is

done sometimes by bricklayers, and no very defined line of demarcation exists, but in modelling plaster work great skill and a long period of learning are necessary. Boys entering the ordinary branch of the trade are not given any definite training, but pick up the work. It is heavy labour which requires considerable physical strength.

Plumbing.—Plumbing includes the making and fixing of the leaden parts of buildings, such as gutters and roofs, and in small shops it also overlaps gas-fitting, smithing, and hot-water fitting. Most plumbers are registered by examination by the Plumbers' Apprenticeship Board, representing the Worshipful Company of Plumbers and the Plumbers' Trade Union. A boy passes a series of examinations before being registered, though he need not be apprenticed in order to do so. As a rule plumbers work in pairs—the plumber and his mate—by which means many boys pick up the trade. The tools are heavy, which makes it necessary for entrants to have a good physique. Geometrical drawing and mathematics are necessary, and boys are well advised to attend evening classes in these subjects. Wages are good.

Police.—Candidates must be eighteen years of age, and besides having an exemplary record, must pass a stiff medical examination. Application should be made to a police station. Service is pensionable.

Poster Painting and Ticket Writing.—Poster writing holds out good prospects for workers having a strongly developed artistic sense, and who are physically strong. Ticket and show-card writing again requires artistic ability, but is more suited to girls or weaker boys. Usually carried on by small firms, or as a special department of big stores, etc. Attention should be paid to ventilation, etc.

Apprenticeship is on the decline; boys, as a rule, are taken on as learners for five years. A premium is sometimes required. Girls are employed mainly in filling in, and do not require special or extended training.

See also Artists.

Potters.—The trade is too local to be described here, but notice should be taken of legal requirements (see p. 162).

Printing.—In general printing the "compositor" sets up the type, which is then "locked up" in frames called "chases." The complete frame ready for printing is a "forme." An impression is then made by the printer, who sends it ("proof") to the proof reader and his young assistant, who check it before sending it to the author for final correction. After a forme is finished with, it is broken up, "distributed," and the letters returned to their places in the compositor's case. Type is also set up by machines, such as the linotype, from which a lead casting is made for use in the printing machine. Linotype operators receive higher pay. The printer is a machine minder who looks after several machines, and is assisted by women or labourers. Girls are usually employed in tending the printing machines: layers-on feed the machine with paper sheet by sheet, numbering, perforating, and hand folding, as well as in working the "platen" or small hand machine used for printing hand-bills, etc.

All skilled branches are entered between the ages of fourteen and fifteen years; apprenticeship is the rule and is very desirable if later employment is to be permanent. Indenture lasts to about twenty-one. There is no premium, but a month's trial is generally expected. In smaller shops all branches are learnt; this is not usual in large works in most parts of the country.

Conditions as regards health depend on the shop. In badly ventilated shops dust is considerable, and constant handling of the type sometimes causes lead poisoning. The fumes from linotype machines may also be injurious where there is a shortage of fresh air. The death rate from pulmonary phthisis is highest among compositors of all indoor occupations. Trade Union maximum hours are forty-four per week. Usual holidays.

Qualifications.—Physical strength, good intelligence, artistic sense, and good English and spelling. This is not so important for girls, who as a rule do the rough work, unless they are of a good standard, when they will do light printing and odd processes.

Special processes are: lithography, chromo-lithography, photo process work, copper and steel plate engraving, die and stamp cutting, wood engraving, stereotyping, and electrotyping.

Legal Requirements: Newspapers.—Factory and Workshops Act. A young person may not be employed on night work unless printing is only carried on on two nights in the week, when, if he is over sixteen, he may be employed provided that he does not work more than twelve hours in any consecutive period of twenty-four hours.

See also Bookbinding and Lithographing. (V. S.)

Railway Work.—Conditions of employment, etc., vary from time to time and with the various companies. In general there are four main sections:

(1) Passenger traffic; (3) Locomotive;
(2) Goods; (4) Engineering;

and, in addition, there are Telegraph, Hotel, and other departments.

Again, as a general rule, local superintendents keep lists of applicants for posts in their sections, and reference is made to this list as vacancies arise. Preference is usually given to the sons of railway servants.

Service as a rule is progressive, and most boys will be sure, provided they behave and are capable, of promotion to the adult grades.

In the Passenger Traffic and Goods Department, as well as on the clerical side, there is a pensions scheme. The clerical staff is engaged between the ages of fifteen and seventeen years, and there is little differentiation between elementary and secondary school boys, but candidates have to pass an examination in spelling,

general knowledge, and shorthand (optional). A strict medical examination is also necessary. In the Traffic and Goods Department boys are engaged as a rule between fourteen and sixteen years, and here again a medical examination is essential. Boys commence in the Traffic Department as parcel vanboys, telephonists, or messengers, and in the Goods Department as messengers or lorry boys.

The Locomotive Departments are divided into driving and cleaning staffs, and repair and maintenance staffs. In the former, boys commence at sixteen or eighteen years of age as cleaners, from which they later become firemen and eventually drivers. In the latter section, boys begin up to sixteen years as apprentices to learn one of the trades of engine fitter, boilersmith, coppersmith, or other engineering work. Similar openings occur in the rolling-stock construction shops.

There are practically no boys employed in the engineering section, which is responsible for track, bridges, etc., and is usually heavy work.

Openings for boys and girls exist from time to time in the Telegraph and Refreshment Department.

Restaurant Workers.—Girls are as a rule not taken before sixteen. They are then employed as waitresses, counter hands, cashiers, or kitchen hands. Conditions are very variable, but as a rule girls live at home and take some of their meals at their place of employment. Work is hard and hours long, and there is little chance of promotion. Girls usually provide their own dresses, but the firm provides aprons.

Rope Making.—Most of this work is not skilled, and attracts a mediocre class of young worker. (T.B. Rope, Wire, and Net Making.)

Royal Navy.—One of the best trainings which a boy can receive. Boys may enter between the ages of fifteen and a quarter and seventeen, and must pass a very strict medical as well as an educational examination. As for all sea service, boys under

seventeen must obtain their parents' consent in writing. Boys enter either for twelve or five years with the fleet, counting from when they become eighteen. The five years' service is for some special branches only, and is followed by a period with the reserve. Full details should be obtained from a recruiting office.

See also Mercantile Marine.

Rubber Working.—The manufacture of indiarubber articles is mainly carried on by men. Boys enter as general workers, and may progress to good well-paid jobs. Girls are employed on making up and finishing machine-made goods. Vulcanising is a dangerous trade, and special regulations apply to it. Details of these regulations are posted in all factories affected.

Legal Requirements.—See p. 163.

Salesmen.—See Shop Assistants. (V.S.)

Saw Mills.—Boys of fourteen are not strong enough to do more than run errands, etc. There is some danger from rapidly revolving saws. Older boys who enter the trade should be well developed, as the work is heavy. The majority of workers in saw mills are labourers. There are some openings for machine minders and engineers.

Scientific Instrument Making—*Optical Instruments.*—The work consists of making, finishing, and fitting together the metal parts, and in grinding and polishing the lenses. The work in the main requires considerable skill, and great manual neatness and a taste for mathematics are required. Boys entering as apprentices or learners only learn one section of the trade.

Spectacle Frame Making is a distinct branch, and is well paid.

Optician's Work.—A boy generally begins in the shop attending to customers, and is expected to attend classes, and to pass suitable examinations. His ability to secure employment later on will depend on this.

Mathematical Instrument Making is confined to a comparatively few workers, and entry is difficult,

except for the sons of workers. A number of workers still work at home. It is a very skilled trade.

See also Surgical Instrument Making.

Sheet Metal Working.—The work is very varied, and demands neat hand-work and intelligence. Ability to adapt himself to new kinds of work seems to ensure a worker constant employment. A five years' apprenticeship is often required, and for competent men the wages are good. Boys should learn to work in more than one metal. Attendance at classes in mechanical drawing and mathematics is very desirable. (T.B. Also for Press and Stamping Work.)

See Soldering.

Shop Assistants.—Boys and girls may enter from fourteen upward. They usually spend the first few years in running errands, sweeping, etc, and then become assistants. Their future will depend very greatly on themselves, but they must be smart in appearance and behaviour, polite, good at mental arithmetic, and willing to learn about the history and uses of the goods which they sell. Many of the larger stores organise their own continuation schools. Wages are about average as a rule, although, like other conditions, they depend on the firm. The aim of shop workers should be to become buyers or departmental managers. There is a growing tendency to insist on a high degree of education in applicants for promotion to these posts. Most shop work is healthy, provided that plenty of outdoor exercise is taken, but during the rush seasons the work is very heavy.

Legal Requirements.—Shop Hours Act, 1892. No young person may be employed for more than seventy-four hours, including meal-times, in any week. No young person may be employed on the same day that he has been employed in any factory or workshop, unless the combined hours worked do not exceed the allowable hours for the factory or workshop under the Factory and Workshops Act, 1901. See p. 164.

Smithing.—Smiths usually work with a mate or

"hammerman," who is responsible for keeping up the fire, striking the metal, etc. Boys sometimes enter the trade in this way, usually at the age of eighteen, and strong boys only are of any use. If they begin younger, it will be on general utility work. Hammermen, if they show ability, may rise to be smiths. A skilled smith commands a good wage, but the work is heavy and hot. Smithing is mostly found as Farriers' Work, Builders' Smithing, and Engineers' Smithing.

Soap Making.—The ingredients are prepared and the soap made by machines under the charge of skilled men workers. Girls are employed in pressing fancy shapes, and in packing. The work is light, clean, and healthy, but not highly paid.

Soldering.—Soldering is a part of the sheet metal trade, and occurs mainly in the making of tin boxes and plumbing in the building trade. Simple soldering is soon learnt, but the more difficult work requires considerable skill. Boys are taken at fourteen on the engineering side and as plumbers' mates, and girls are employed in the box trade. Wages for young solderers are not high, and all cannot be absorbed as they become adults.

See Sheet Metal Working and Plumbing.

Spinning (Metal).—This is the making of bowls, and other round metal objects. The metal is cut into circles, and is then fixed to the rotating chuck of a lathe. It is pressed with a blunt tool, which, while the metal revolves, presses it against a turned wooden block having the desired shape of the finished object. Metal spinning is much used by silver and copper smiths, art metal workers, and all sheet metal workers. Good workmen are in demand. Boys enter at fourteen as learners, and take from five to seven years. Their wages are not high, but for learners are good.

Stove and Grate Making.—See Iron Founding, Enamelling, Fitting.

Surgical Instrument Making.—The making of all goods required by doctors, from knives to artificial limbs, is hand work, and requires great skill. Steel

instrument making is the highest paid, and workers able to execute special orders are extremely well paid. Artificial limb making is not quite so well paid—it is woodwork. Most of the cheaper work is imported from Germany. Apprenticeship is usual and lasts from five to seven years. Attendance at classes in mechanical drawing is useful, as is also some knowledge of anatomy and the methods of operating.

Tailoring.—Tailoring, except in large wholesale factories, is a home industry. In the wholesale branch work is carried on in large workrooms in a factory, while in the retail section the employer contracts out the work to home workers. It is very difficult for a boy to learn the whole of the trade, as usually he is employed on doing one or two operations only. Girls are extensively employed on the lighter sections of the work, and exclusively on some operations, such as button-hole stitching. The lower grades are badly paid, but skilled workers can command a high wage, and cutters may run into £1,000 a year.

Coat making is carried out by men with the aid of women assistants. It is a good trade, but requires considerable experience and natural ability.

Trouser making is not so skilled. It is done entirely by men, with women to do the finishing.

Waistcoat making, except for the best work, is done by women. Considerable skill is required, as the cloth has to be moulded to shape as it is stitched up. As in all the other sections, cutting-out is a separate trade.

Breeches making is a very good section; men only are employed, and the work is heavy on account of the heavy material used.

Ladies' tailoring is one of the best branches, but, particularly in London, is in the hands of foreigners.

Cutting is the best section of the trade, but apprentices are not taught it except by special arrangement.

Trimming and lining making is only semi-skilled, and much of it is done by women.

In modern factories the trade is healthy, but sedentary,

and apt to accentuate latent physical troubles. In the home-work section the work is usually hard, the hours long, and working conditions not all that can be desired. (T.B.)

Telegraphist.—Boys enter the Post Office as boy messengers, and must be under the age of fourteen and a half years. Candidates must not be less than 4 feet 8 inches in height, and have to satisfy certain tests of weight and chest measurement, as well as pass a stiff medical examination. They should have completed standard 7 or 8, and an examination in dictation and arithmetic is always given.

Uniform is provided, and an annual holiday of twelve days is allowed.

After obtaining a Civil Service Certificate, at sixteen service is pensionable.

Telephonist.—Girls are engaged as girl probationers between the ages of fourteen and fifteen, and provided that they pass an examination at the age of sixteen and a half, are promoted to telephone work.

Service after sixteen is pensionable.

Tin Smithing.—Is the making of cooking utensils and other tin articles. The metal is bought in sheets, and cut and shaped by hand machines. All soldering and riveting is done by hand. There is a certain amount of home working. Boys and girls begin as learners, and as soon as proficient are promoted to piece-work. Wages are not high, but the work is usually light. A straight eye and ability to do neat work are essential.

Tobacco Manufacture.—The preliminary processes in preparing tobacco are very diverse, and form trades in themselves. The conditions in most of them are good, although a damp environment is necessary in some processes.

Cigarettes are now mostly made by machines requiring little attention beyond that of a supervising mechanic. Hand making requires very neat fingers and an ability to withstand monotony. It may be learnt

in from six months to a year, and when the learner is once proficient wages are fairly good.

Cigars require more skill in the making. Most of the employees are Jewish.

Packing is done by girls, although here again the majority of the work is carried out by machinery. (T.B.)

Tool Making—*Bookbinders' Tool Making.*—The hand-worked designs on book covers are impressed by heated metal tools. The making of these is a highly skilled operation. Apprenticeship is dying out; boys are usually taken on as learners until they are twenty-one. Wages for boys and adults are normal for skilled craftsmen. Keen and accurate eyesight and neat fingers are essential. A study of drawing is desirable.

Brass Engraving.—Men employed in bookbinding tool shops often cut out letters in brass plate for shop and office signs, and even where this is not so, the trades are closely connected. A seven years' apprenticeship is usual, and the prospects are good.

Jewellers' Die Sinking.—This trade is the making of dies for impressing designs on jewellery, medals, coins, etc., and is either carried out by hand or, for better-class work, by the use of a machine for reproducing on a small scale a design previously carried out in plaster of Paris. Wages for adults are high, but not one learner in a hundred will ever make a first-class craftsman.

Engineers' Tool Smithing.—The work of a toolsmith is to forge from an iron bar the various tools used on lathes, planing machines, etc. Boys usually start on odd jobs, and by degrees become promoted to acting as strikers to hammer the work which the smith is engaged upon. At twenty-one such boys become proper strikers, and may eventually be smiths. Wages are above the average, and employment is regular. The trade is healthy, although there is some danger from chips and glare to weak eyes.

Tool Makers.—With the universal introduction of tool holders on cutting machines, the need for smithing has decreased. Most of the tools in use simply require

grinding from time to time. A skilled grinder frequently commands a good wage, but in many kinds of shop the machinists grind their own tools.

Press Tool Making.—Press tools are forged and machine-finished for all stamping processes. This is a special branch of tool smithing, and both forging and machining are often carried out by one man. Boys are seldom entered, recruits being drawn from the general smiths.

(V.S.)

Tube Manufacture.—Tubes are generally made of brass, wrought iron, mild steel, or copper. They are either "welded"—that is, long flat strips are pressed into tube form and the joint welded—or "drawn" from cylindrical billets by continued drawing through metal dies. In brass work boys begin at fourteen, but, owing to the strength required, are not admitted to the steel section till a later age. Apprenticeship is not usual, and a large number enter the trade as adults. Great skill or intellect is not necessary. The process known as dogging-up in particular attracts a poor class of boy. A large number of boys are forced out of the trade at eighteen.

Turning.—See Mechanic.

Umbrella Making.—Beyond a certain amount of sewing ability, little skill is required, and a rough class of girl is attracted. In some works a good deal of drinking goes on. No regular training is usual, and after six months' learning a girl goes on to piece-work. The metal frames are made by men, who are semi-skilled. Wages in all branches are low, except in machining, where skill and experience are required.

Upholstery.—The Trade Unions insist on cutting, measuring, and chair stuffing as being man's work. In the better class of work it is skilled and well paid. Women are employed on the lighter branches, but as these are mainly semi-skilled, no great ability is required. It is, however, a good trade for girls who like sewing, but is subject to seasonal slackness. Boys

are sometimes apprenticed for five years, and occasionally a premium is asked. (T.B.)

Legal Requirements.—Factory and Workshops Act, 1901. The working of horsehair from China, Siberia, or Russia is prohibited to persons under eighteen for fear of anthrax infection.

Van Boys.—The usual objection to this class of work is that when once a boy reaches the age of seventeen or eighteen and demands a man's pay, he is dismissed without having a trade to turn to. This is often so, but prospects vary with the type of employment. Railway Companies and Breweries offer the best chances of absorption, while parcels delivery companies offer a limited scope as clerks and warehouse men. Laundries provide practically no future employment. Another objection, often recognised by the employers, is that the slack and dilatory nature of the work has a demoralising influence on boys.

Railways (Goods).—Hours about sixty per week, few holidays, and variable meal-times. Wages good. Boys as a rule seem to settle down when promoted from van work, but usually a rough class is attracted.

Railways (Parcels).—Hours about the same, holidays small but regular, and long dinner-hour. Wages good. More variety of work, such as cleaning, sorting, filling in way-sheets, etc. A better class of boy is usual, and uniforms are usually provided free. All boys can be absorbed.

Parcels Delivery Companies.—Hours are roughly the same, but very irregular, and tend to become very late towards the end of a week. There are few recognised holidays, wages are fair, and no uniforms are, as a rule, supplied. The type of boy varies with the company. Prospect of absorption practically nil.

Brewers and Mineral Water Manufacturers.—Hours and wages about the same; irregular meal-times, and few holidays. A rough class of boy is the rule, and prospect of absorption into unskilled work is fair.

Laundries.—Hours, meals, and work very irregular.

Wages lower than in other classes of van work. There are no prospects of absorption.

Warehouse Work.—Conditions vary from trade to trade. Wholesale drapery work is one of the best, and offers a decent prospect of becoming a salesman, although many salesmen are recruited from the retail trade. Among girls the conditions are sometimes poor. In placing girls the great criterion of a job must be the conditions prevalent in the particular warehouse in question.

Watch and Clock Making—*Watch Making.*—Machine-made watches are mainly imported from abroad. Hand-made watches are cast or pressed piece by piece, and then finished by hand. Different workers make different parts. These are then assembled by another workman. The trade is a light one, and suitable for a cripple. Very good eyesight is essential.

Clock Making is not so sectionalised as watch making, and sometimes a man will make a complete clock. Boys who learn to work automatic machines only will stand no chance of becoming clock makers.

Repairing.—The increasing use of cheap machine-made watches and clocks makes more repairing necessary. There is a great demand for good repairers, but boys are advised to learn the making trade first, and then to turn to repairing. In all branches steady nerves and good eyes are essential.

Welding.—Welding consists of uniting two pieces of metal by one of two methods. The first is to heat their edges to just below the melting point, and then to hammer them together. The second is actually to melt the metal at the point of juncture, either with an oxy-acetylene or oxy-hydrogen flame, or with an electric arc. It is usual for youths to enter the trade at seventeen or eighteen, and girls, who are often employed on light work, at the same age. The wages and prospects are good, but quick intelligence, good eyesight, and strength are essential. Masks or goggles are always worn to protect the eyes from the very bright light,

which also sometimes causes eruption of the skin, which is, however, of a temporary and non-dangerous nature.

Wire Making.—(T.B.)

Wire Working.—Boys as a rule begin at sixteen as learners, usually in small factories. The work is light and interesting, but great manual dexterity is needed if good wages are to be earned on piece-work. The processes involved are usually the shaping of the wire by pressing it in hand presses, and soldering together the prepared wires. Much of the shaping is now done by automatic machines. Wages are average, and there is some chance of a boy obtaining a good situation later on as a tool maker.

Wood Working—*Wood Carving.*—Apprenticeship is diminishing. Wages and employment are very good for the highest class of work, but there is an over-supply of workers for the lower grades of work. The trade is naturally clean and healthy.

See Motor Body Building.

Packing Case Making.—Not a very skilled trade. Boys begin on general utility work, and do not commence actual making till they are sixteen owing to the heavy nature of the work. There is some danger of injury from the wood-cutting machines.

See also Cabinet Makers and Carpenters, and Saw Mills.

Piano Making.—This trade is very much subdivided. It requires manual skill, and boys take from five to seven years to learn most sections. The better class of work is most liable to feel the effects of foreign competition, and may, therefore, suffer from periodical slackness.

Other wood-working trades requiring skill and offering good prospects are:

Picture Frame Making and Gilding.
Wood Carving.
Stick Making.
Shop Fitting.
Wooden Trunk Making.

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